Figure 1

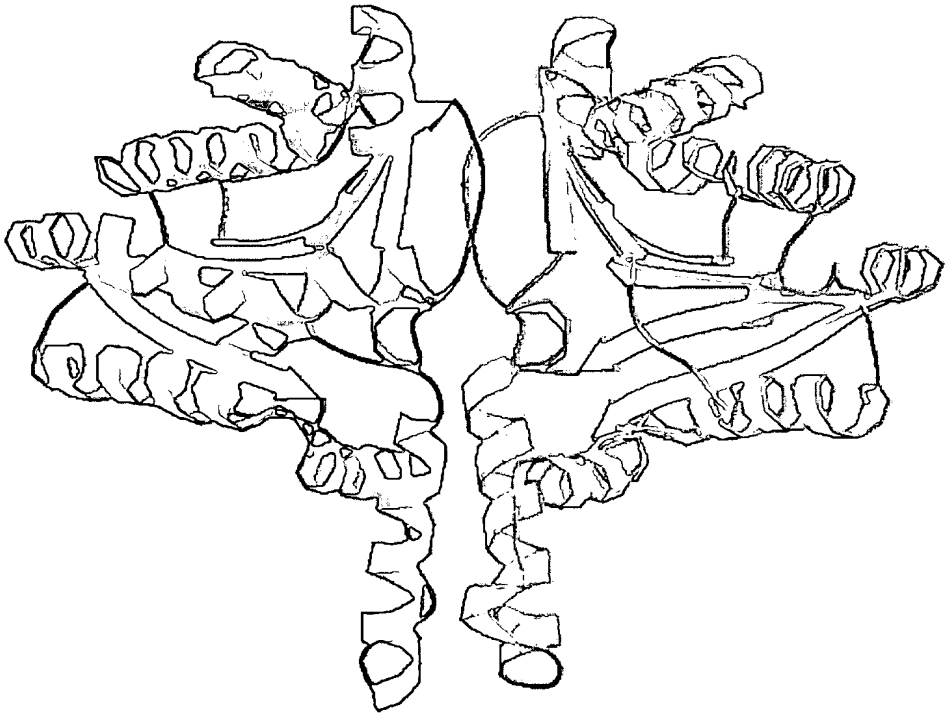

Figure 2-1

```
HEADER    ----          XX-XXX-XX   xxxx
COMPND    ---
REMARK   3
REMARK   3 REFINEMENT.
REMARK   3   PROGRAM     : REFMAC 5.0
REMARK   3   AUTHORS     : MURSHUDOV,VAGIN,DODSON
REMARK   3
REMARK   3    REFINEMENT TARGET : MAXIMUM LIKELIHOOD
REMARK   3
REMARK   3  DATA USED IN REFINEMENT.
REMARK   3   RESOLUTION RANGE HIGH (ANGSTROMS) :   2.30
REMARK   3   RESOLUTION RANGE LOW  (ANGSTROMS) :  20.00
REMARK   3   DATA CUTOFF   (SIGMA(F)) : NONE
REMARK   3   COMPLETENESS FOR RANGE        (%) :  97.54
REMARK   3   NUMBER OF REFLECTIONS     :   26588
REMARK   3
REMARK   3  FIT TO DATA USED IN REFINEMENT.
REMARK   3   CROSS-VALIDATION METHOD          : THROUGHOUT
REMARK   3   FREE R VALUE TEST SET SELECTION  : RANDOM
REMARK   3   R VALUE     (WORKING + TEST SET) : 0.28866
REMARK   3   R VALUE    (WORKING SET) :  0.28610
REMARK   3   FREE R VALUE             :  0.33622
REMARK   3   FREE R VALUE TEST SET SIZE   (%) :  5.1
REMARK   3   FREE R VALUE TEST SET COUNT      :  1420
REMARK   3
REMARK   3  FIT IN THE HIGHEST RESOLUTION BIN.
REMARK   3   TOTAL NUMBER OF BINS USED  :      20
REMARK   3   BIN RESOLUTION RANGE HIGH  :   2.300
REMARK   3   BIN RESOLUTION RANGE LOW   :   2.359
REMARK   3   REFLECTION IN BIN     (WORKING SET) :     1804
REMARK   3   BIN R VALUE  (WORKING SET) :   0.372
REMARK   3   BIN FREE R VALUE SET COUNT          :       94
REMARK   3   BIN FREE R VALUE           :   0.487
REMARK   3
REMARK   3  NUMBER OF NON-HYDROGEN ATOMS USED IN REFINEMENT.
REMARK   3   ALL ATOMS       :     3487
REMARK   3
REMARK   3  B VALUES.
REMARK   3   FROM WILSON PLOT  (A**2) : NULL
REMARK   3   MEAN B VALUE      (OVERALL, A**2) :  54.098
REMARK   3   OVERALL ANISOTROPIC B VALUE.
REMARK   3    B11 (A**2) :     1.98
REMARK   3    B22 (A**2) :    -1.94
REMARK   3    B33 (A**2) :    -0.04
REMARK   3    B12 (A**2) :     0.00
REMARK   3    B13 (A**2) :     0.00
REMARK   3    B23 (A**2) :     0.00
REMARK   3
REMARK   3  ESTIMATED OVERALL COORDINATE ERROR.
REMARK   3   ESU BASED ON R VALUE           (A):   0.355
REMARK   3   ESU BASED ON FREE R VALUE      (A):   0.287
REMARK   3   ESU BASED ON MAXIMUM LIKELIHOOD        (A):   0.293
REMARK   3   ESU FOR B VALUES BASED ON MAXIMUM LIKELIHOOD (A**2):  12.484
REMARK   3
REMARK   3 CORRELATION COEFFICIENTS.
REMARK   3   CORRELATION COEFFICIENT FO-FC      :   0.907
REMARK   3   CORRELATION COEFFICIENT FO-FC FREE :   0.862
```

Figure 2-2

```
REMARK   3
REMARK   3  RMS DEVIATIONS FROM IDEAL VALUES         COUNT    RMS    WEIGHT
REMARK   3   BOND LENGTHS REFINED ATOMS        (A):  3439 ; 0.013 ; 0.022
REMARK   3   BOND ANGLES REFINED ATOMS   (DEGREES):  4671 ; 1.669 ; 1.953
REMARK   3   TORSION ANGLES, PERIOD 1    (DEGREES):   425 ; 3.956 ; 3.000
REMARK   3   TORSION ANGLES, PERIOD 3    (DEGREES):   605 ;22.659 ;15.000
REMARK   3   CHIRAL-CENTER RESTRAINTS       (A**3):   527 ; 0.112 ; 0.200
REMARK   3   GENERAL PLANES REFINED ATOMS      (A):  2625 ; 0.005 ; 0.020
REMARK   3   NON-BONDED CONTACTS REFINED ATOMS (A):  1755 ; 0.299 ; 0.300
REMARK   3   H-BOND (X...Y) REFINED ATOMS      (A):   288 ; 0.228 ; 0.500
REMARK   3   SYMMETRY VDW REFINED ATOMS        (A):    26 ; 0.359 ; 0.300
REMARK   3   SYMMETRY H-BOND REFINED ATOMS     (A):     1 ; 1.302 ; 0.500
REMARK   3
REMARK   3  ISOTROPIC THERMAL FACTOR RESTRAINTS.     COUNT   RMS    WEIGHT
REMARK   3   MAIN-CHAIN BOND REFINED ATOMS  (A**2):  2138 ; 0.973 ; 1.500
REMARK   3   MAIN-CHAIN ANGLE REFINED ATOMS (A**2):  3428 ; 1.768 ; 2.000
REMARK   3   SIDE-CHAIN BOND REFINED ATOMS  (A**2):  1301 ; 2.129 ; 3.000
REMARK   3   SIDE-CHAIN ANGLE REFINED ATOMS (A**2):  1243 ; 3.492 ; 4.500
REMARK   3
REMARK   3  NCS RESTRAINTS STATISTICS
REMARK   3   NUMBER OF NCS GROUPS : NULL
REMARK   3
REMARK   3
REMARK   3  TLS DETAILS
REMARK   3   NUMBER OF TLS GROUPS  : NULL
REMARK   3
REMARK   3
REMARK   3  BULK SOLVENT MODELLING.
REMARK   3   METHOD USED : BABINET MODEL WITH MASK
REMARK   3   PARAMETERS FOR MASK CALCULATION
REMARK   3   VDW PROBE RADIUS   :   1.40
REMARK   3   ION PROBE RADIUS   :   0.80
REMARK   3   SHRINKAGE RADIUS   :   0.80
REMARK   3
REMARK   3  OTHER REFINEMENT REMARKS: NULL
REMARK   3
CRYST1   59.990  118.200  178.930  90.00  90.00  90.00 I 21 21 21
SCALE1      0.016669  0.000000  0.000000        0.00000
SCALE2      0.000000  0.008460  0.000000        0.00000
SCALE3      0.000000  0.000000  0.005589        0.00000
ATOM      1  N   VAL A  19      -7.418  68.919  31.717  1.00 48.16  N
ATOM      2  CA  VAL A  19      -6.779  69.329  30.435  1.00 48.56  C
ATOM      3  CB  VAL A  19      -7.111  70.775  30.063  1.00 48.92  C
ATOM      4  CG1 VAL A  19      -6.503  71.122  28.736  1.00 48.03  C
ATOM      5  CG2 VAL A  19      -8.639  70.983  30.013  1.00 50.58  C
ATOM      6  C   VAL A  19      -5.257  69.192  30.464  1.00 48.35  C
ATOM      7  O   VAL A  19      -4.575  69.963  31.144  1.00 49.46  O
ATOM      8  N   PRO A  20      -4.723  68.224  29.724  1.00 47.10  N
ATOM      9  CA  PRO A  20      -3.281  68.065  29.628  1.00 46.36  C
ATOM     10  CB  PRO A  20      -3.112  66.910  28.656  1.00 46.36  C
ATOM     11  CG  PRO A  20      -4.406  66.230  28.628  1.00 47.65  C
ATOM     12  CD  PRO A  20      -5.452  67.249  28.903  1.00 47.38  C
ATOM     13  C   PRO A  20      -2.820  69.310  28.957  1.00 45.07  C
ATOM     14  O   PRO A  20      -3.490  69.743  28.040  1.00 45.79  O
ATOM     15  N   ALA A  21      -1.706  69.869  29.381  1.00 43.33  N
ATOM     16  CA  ALA A  21      -1.223  71.105  28.805  1.00 41.51  C
ATOM     17  CB  ALA A  21      -0.286  71.781  29.787  1.00 41.50  C
```

Figure 2-3

```
ATOM     18  C   ALA A  21      -0.549  70.968  27.458  1.00 40.90  C
ATOM     19  O   ALA A  21      -0.686  71.835  26.598  1.00 41.19  O
ATOM     20  N   HIS A  22       0.220  69.897  27.275  1.00 39.95  N
ATOM     21  CA  HIS A  22       1.006  69.696  26.050  1.00 38.49  C
ATOM     22  CB  HIS A  22       2.507  69.744  26.398  1.00 38.83  C
ATOM     23  CG  HIS A  22       3.428  69.616  25.224  1.00 36.59  C
ATOM     24  ND1 HIS A  22       4.754  69.973  25.291  1.00 32.53  N
ATOM     25  CE1 HIS A  22       5.324  69.783  24.116  1.00 32.54  C
ATOM     26  NE2 HIS A  22       4.415  69.302  23.288  1.00 32.54  N
ATOM     27  CD2 HIS A  22       3.220  69.181  23.958  1.00 34.01  C
ATOM     28  C   HIS A  22       0.590  68.330  25.533  1.00 38.14  C
ATOM     29  O   HIS A  22       0.698  67.349  26.250  1.00 38.19  O
ATOM     30  N   ILE A  23       0.032  68.261  24.325  1.00 37.48  N
ATOM     31  CA  ILE A  23      -0.470  66.987  23.832  1.00 36.43  C
ATOM     32  CB  ILE A  23      -1.959  67.025  23.578  1.00 36.22  C
ATOM     33  CG1 ILE A  23      -2.714  67.041  24.892  1.00 37.55  C
ATOM     34  CD1 ILE A  23      -4.245  66.887  24.716  1.00 38.62  C
ATOM     35  CG2 ILE A  23      -2.365  65.826  22.824  1.00 34.78  C
ATOM     36  C   ILE A  23       0.252  66.646  22.565  1.00 36.13  C
ATOM     37  O   ILE A  23       0.306  67.472  21.672  1.00 34.91  O
ATOM     38  N   GLY A  24       0.855  65.445  22.524  1.00 35.65  N
ATOM     39  CA  GLY A  24       1.648  65.032  21.382  1.00 35.69  C
ATOM     40  C   GLY A  24       0.781  64.246  20.441  1.00 35.73  C
ATOM     41  O   GLY A  24      -0.025  63.444  20.885  1.00 36.40  O
ATOM     42  N   ILE A  25       0.920  64.487  19.144  1.00 36.62  N
ATOM     43  CA  ILE A  25       0.059  63.807  18.196  1.00 37.63  C
ATOM     44  CB  ILE A  25      -1.026  64.771  17.646  1.00 38.53  C
ATOM     45  CG1 ILE A  25      -1.614  65.642  18.763  1.00 39.49  C
ATOM     46  CD1 ILE A  25      -2.740  66.564  18.299  1.00 43.97  C
ATOM     47  CG2 ILE A  25      -2.108  63.956  16.962  1.00 37.61  C
ATOM     48  C   ILE A  25       0.732  63.122  17.008  1.00 37.06  C
ATOM     49  O   ILE A  25       1.339  63.771  16.182  1.00 36.59  O
ATOM     50  N   ILE A  26       0.578  61.812  16.889  1.00 37.50  N
ATOM     51  CA  ILE A  26       1.092  61.167  15.655  1.00 38.85  C
ATOM     52  CB  ILE A  26       1.793  59.863  16.008  1.00 37.61  C
ATOM     53  CG1 ILE A  26       2.987  60.196  16.901  1.00 38.29  C
ATOM     54  CD1 ILE A  26       3.478  59.043  17.730  1.00 38.15  C
ATOM     55  CG2 ILE A  26       2.300  59.189  14.794  1.00 37.43  C
ATOM     56  C   ILE A  26       0.042  61.000  14.542  1.00 39.31  C
ATOM     57  O   ILE A  26      -0.760  60.072  14.555  1.00 38.98  O
ATOM     58  N   MET A  27       0.041  61.926  13.601  1.00 42.96  N
ATOM     59  CA  MET A  27      -0.934  61.880  12.512  1.00 46.32  C
ATOM     60  CB  MET A  27      -1.016  63.232  11.826  1.00 47.00  C
ATOM     61  CG  MET A  27      -1.560  64.258  12.770  1.00 47.41  C
ATOM     62  SD  MET A  27      -1.531  65.830  12.037  1.00 52.60  S
ATOM     63  CE  MET A  27       0.225  66.138  11.726  1.00 48.74  C
ATOM     64  C   MET A  27      -0.734  60.736  11.519  1.00 48.03  C
ATOM     65  O   MET A  27       0.043  60.832  10.566  1.00 48.14  O
ATOM     66  N   ASP A  28      -1.474  59.660  11.744  1.00 49.90  N
ATOM     67  CA  ASP A  28      -1.361  58.497  10.892  1.00 52.11  C
ATOM     68  CB  ASP A  28      -0.709  57.378  11.699  1.00 52.75  C
ATOM     69  CG  ASP A  28       0.006  56.368  10.826  1.00 54.15  C
ATOM     70  OD1 ASP A  28       0.535  56.770   9.761  1.00 55.29  O
ATOM     71  OD2 ASP A  28       0.087  55.157  11.127  1.00 55.05  O
ATOM     72  C   ASP A  28      -2.705  58.004  10.328  1.00 53.35  C
ATOM     73  O   ASP A  28      -3.728  58.005  11.021  1.00 51.99  O
ATOM     74  N   GLY A  29      -2.700  57.587   9.064  1.00 54.97  N
```

Figure 2-4

```
ATOM     75  CA  GLY A  29      -3.892  56.975   8.498  1.00 57.53  C
ATOM     76  C   GLY A  29      -4.574  57.512   7.246  1.00 58.92  C
ATOM     77  O   GLY A  29      -5.447  56.852   6.707  1.00 58.79  O
ATOM     78  N   ASN A  30      -4.212  58.696   6.791  1.00 60.57  N
ATOM     79  CA  ASN A  30      -4.795  59.241   5.570  1.00 62.89  C
ATOM     80  CB  ASN A  30      -3.907  60.387   5.092  1.00 62.41  C
ATOM     81  CG  ASN A  30      -3.426  61.254   6.259  1.00 62.16  C
ATOM     82  OD1 ASN A  30      -3.928  61.131   7.379  1.00 60.87  O
ATOM     83  ND2 ASN A  30      -2.453  62.118   6.004  1.00 60.20  N
ATOM     84  C   ASN A  30      -5.010  58.175   4.484  1.00 64.79  C
ATOM     85  O   ASN A  30      -6.122  58.029   3.938  1.00 64.47  O
ATOM     86  N   GLY A  31      -3.945  57.423   4.199  1.00 66.96  N
ATOM     87  CA  GLY A  31      -3.982  56.359   3.217  1.00 69.13  C
ATOM     88  C   GLY A  31      -5.072  55.359   3.511  1.00 70.89  C
ATOM     89  O   GLY A  31      -6.083  55.311   2.813  1.00 70.89  O
ATOM     90  N   ARG A  32      -4.894  54.559   4.550  1.00 72.88  N
ATOM     91  CA  ARG A  32      -5.895  53.536   4.839  1.00 75.53  C
ATOM     92  CB  ARG A  32      -5.701  52.939   6.232  1.00 75.54  C
ATOM     93  CG  ARG A  32      -4.885  51.662   6.238  1.00 77.42  C
ATOM     94  CD  ARG A  32      -4.618  51.092   7.622  1.00 80.39  C
ATOM     95  NE  ARG A  32      -4.006  49.767   7.546  1.00 83.46  N
ATOM     96  CZ  ARG A  32      -4.613  48.678   7.069  1.00 86.03  C
ATOM     97  NH1 ARG A  32      -3.955  47.522   7.042  1.00 86.88  N
ATOM     98  NH2 ARG A  32      -5.874  48.734   6.622  1.00 86.02  N
ATOM     99  C   ARG A  32      -7.314  54.080   4.686  1.00 76.93  C
ATOM    100  O   ARG A  32      -8.242  53.356   4.331  1.00 76.95  O
ATOM    101  N   TRP A  33      -7.460  55.373   4.934  1.00 78.77  N
ATOM    102  CA  TRP A  33      -8.760  56.016   4.934  1.00 80.73  C
ATOM    103  CB  TRP A  33      -8.678  57.307   5.759  1.00 80.86  C
ATOM    104  CG  TRP A  33      -9.982  57.931   6.089  1.00 81.96  C
ATOM    105  CD1 TRP A  33     -10.871  57.557   7.059  1.00 82.34  C
ATOM    106  NE1 TRP A  33     -11.954  58.405   7.058  1.00 82.62  N
ATOM    107  CE2 TRP A  33     -11.776  59.342   6.071  1.00 83.40  C
ATOM    108  CD2 TRP A  33     -10.541  59.071   5.456  1.00 83.01  C
ATOM    109  CE3 TRP A  33     -10.122  59.896   4.417  1.00 84.03  C
ATOM    110  CZ3 TRP A  33     -10.928  60.938   4.023  1.00 84.27  C
ATOM    111  CH2 TRP A  33     -12.147  61.187   4.647  1.00 83.63  C
ATOM    112  CZ2 TRP A  33     -12.594  60.401   5.668  1.00 83.15  C
ATOM    113  C   TRP A  33      -9.298  56.252   3.513  1.00 81.59  C
ATOM    114  O   TRP A  33     -10.429  55.859   3.199  1.00 81.27  O
ATOM    115  N   ALA A  34      -8.481  56.868   2.663  1.00 82.68  N
ATOM    116  CA  ALA A  34      -8.861  57.108   1.275  1.00 84.09  C
ATOM    117  CB  ALA A  34      -7.763  57.847   0.551  1.00 83.71  C
ATOM    118  C   ALA A  34      -9.178  55.802   0.552  1.00 85.25  C
ATOM    119  O   ALA A  34     -10.277  55.606   0.038  1.00 85.18  O
ATOM    120  N   LYS A  35      -8.195  54.916   0.521  1.00 86.87  N
ATOM    121  CA  LYS A  35      -8.331  53.640  -0.152  1.00 88.59  C
ATOM    122  CB  LYS A  35      -7.111  52.770   0.101  1.00 88.50  C
ATOM    123  CG  LYS A  35      -7.256  51.348  -0.401  1.00 89.35  C
ATOM    124  CD  LYS A  35      -5.885  50.726  -0.624  1.00 91.12  C
ATOM    125  CE  LYS A  35      -5.024  51.620  -1.518  1.00 91.32  C
ATOM    126  NZ  LYS A  35      -3.592  51.206  -1.556  1.00 91.42  N
ATOM    127  C   LYS A  35      -9.577  52.913   0.304  1.00 89.49  C
ATOM    128  O   LYS A  35     -10.267  52.300  -0.503  1.00 89.53  O
ATOM    129  N   LYS A  36      -9.856  52.979   1.602  1.00 90.82  N
ATOM    130  CA  LYS A  36     -11.059  52.377   2.170  1.00 91.97  C
ATOM    131  CB  LYS A  36     -11.037  52.478   3.696  1.00 92.24  C
```

Figure 2-5

```
ATOM    132  CG  LYS A  36     -11.936  51.500   4.432  1.00 92.98   C
ATOM    133  CD  LYS A  36     -11.954  51.799   5.931  1.00 94.21   C
ATOM    134  CE  LYS A  36     -13.100  51.072   6.625  1.00 95.59   C
ATOM    135  NZ  LYS A  36     -13.270  51.496   8.041  1.00 96.83   N
ATOM    136  C   LYS A  36     -12.240  53.147   1.602  1.00 92.50   C
ATOM    137  O   LYS A  36     -13.307  52.587   1.336  1.00 92.34   O
ATOM    138  N   ARG A  37     -12.037  54.446   1.411  1.00 93.24   N
ATOM    139  CA  ARG A  37     -13.058  55.267   0.797  1.00 94.00   C
ATOM    140  CB  ARG A  37     -12.939  56.727   1.222  1.00 93.87   C
ATOM    141  CG  ARG A  37     -13.950  57.089   2.279  1.00 93.38   C
ATOM    142  CD  ARG A  37     -13.386  57.737   3.515  1.00 92.65   C
ATOM    143  NE  ARG A  37     -14.327  57.647   4.631  1.00 92.34   N
ATOM    144  CZ  ARG A  37     -14.180  56.845   5.682  1.00 92.82   C
ATOM    145  NH1 ARG A  37     -13.123  56.050   5.779  1.00 93.20   N
ATOM    146  NH2 ARG A  37     -15.086  56.840   6.649  1.00 92.84   N
ATOM    147  C   ARG A  37     -12.951  55.081  -0.696  1.00 94.88   C
ATOM    148  O   ARG A  37     -13.859  55.424  -1.439  1.00 94.72   O
ATOM    149  N   MET A  38     -11.833  54.513  -1.131  1.00 96.29   N
ATOM    150  CA  MET A  38     -11.673  54.146  -2.532  1.00 97.29   C
ATOM    151  CB  MET A  38     -12.908  53.368  -2.963  1.00 97.56   C
ATOM    152  CG  MET A  38     -13.329  53.464  -4.381  1.00 98.17   C
ATOM    153  SD  MET A  38     -14.860  52.595  -4.310  1.00101.09   S
ATOM    154  CE  MET A  38     -14.386  51.142  -3.317  1.00100.77   C
ATOM    155  C   MET A  38     -11.398  55.346  -3.413  1.00 97.68   C
ATOM    156  O   MET A  38     -11.799  55.422  -4.572  1.00 97.34   O
ATOM    157  N   GLN A  39     -10.686  56.285  -2.821  1.00 98.53   N
ATOM    158  CA  GLN A  39     -10.292  57.487  -3.499  1.00 99.58   C
ATOM    159  CB  GLN A  39     -10.769  58.690  -2.698  1.00 99.64   C
ATOM    160  CG  GLN A  39     -12.283  58.751  -2.574  1.00 99.57   C
ATOM    161  CD  GLN A  39     -12.941  59.073  -3.896  1.00100.24   C
ATOM    162  OE1 GLN A  39     -12.269  59.157  -4.923  1.00100.05   O
ATOM    163  NE2 GLN A  39     -14.249  59.267  -3.879  1.00101.01   N
ATOM    164  C   GLN A  39      -8.780  57.448  -3.612  1.00100.37   C
ATOM    165  O   GLN A  39      -8.132  56.603  -2.997  1.00100.68   O
ATOM    166  N   PRO A  40      -8.218  58.351  -4.401  1.00101.06   N
ATOM    167  CA  PRO A  40      -6.771  58.404  -4.617  1.00101.48   C
ATOM    168  CB  PRO A  40      -6.610  59.651  -5.480  1.00101.56   C
ATOM    169  CG  PRO A  40      -7.834  60.446  -5.158  1.00101.63   C
ATOM    170  CD  PRO A  40      -8.920  59.416  -5.132  1.00101.26   C
ATOM    171  C   PRO A  40      -6.098  58.642  -3.290  1.00101.91   C
ATOM    172  O   PRO A  40      -6.803  58.981  -2.341  1.00102.13   O
ATOM    173  N   ARG A  41      -4.780  58.497  -3.211  1.00102.35   N
ATOM    174  CA  ARG A  41      -4.099  58.702  -1.939  1.00102.62   C
ATOM    175  CB  ARG A  41      -2.703  58.077  -1.941  1.00102.88   C
ATOM    176  CG  ARG A  41      -2.063  58.026  -0.565  1.00103.36   C
ATOM    177  CD  ARG A  41      -0.879  57.084  -0.447  1.00104.27   C
ATOM    178  NE  ARG A  41      -0.454  56.962   0.943  1.00104.82   N
ATOM    179  CZ  ARG A  41       0.534  57.662   1.483  1.00105.07   C
ATOM    180  NH1 ARG A  41       1.212  58.530   0.744  1.00105.26   N
ATOM    181  NH2 ARG A  41       0.849  57.494   2.761  1.00104.63   N
ATOM    182  C   ARG A  41      -4.034  60.162  -1.519  1.00102.53   C
ATOM    183  O   ARG A  41      -4.181  60.463  -0.338  1.00102.62   O
ATOM    184  N   VAL A  42      -3.830  61.068  -2.473  1.00102.39   N
ATOM    185  CA  VAL A  42      -3.733  62.498  -2.150  1.00102.37   C
ATOM    186  CB  VAL A  42      -3.343  63.348  -3.380  1.00102.45   C
ATOM    187  CG1 VAL A  42      -4.460  63.348  -4.415  1.00102.73   C
ATOM    188  CG2 VAL A  42      -2.981  64.767  -2.958  1.00102.52   C
```

Figure 2-6

```
ATOM    189  C   VAL A  42      -5.004  63.055  -1.481  1.00102.11   C
ATOM    190  O   VAL A  42      -4.974  64.106  -0.835  1.00102.06   O
ATOM    191  N   PHE A  43      -6.113  62.339  -1.644  1.00101.71   N
ATOM    192  CA  PHE A  43      -7.368  62.669  -0.979  1.00101.27   C
ATOM    193  CB  PHE A  43      -8.435  61.650  -1.381  1.00101.51   C
ATOM    194  CG  PHE A  43      -9.791  62.239  -1.668  1.00102.18   C
ATOM    195  CD1 PHE A  43      -9.989  63.044  -2.778  1.00103.21   C
ATOM    196  CE1 PHE A  43     -11.234  63.562  -3.059  1.00103.53   C
ATOM    197  CZ  PHE A  43     -12.304  63.268  -2.234  1.00103.60   C
ATOM    198  CE2 PHE A  43     -12.127  62.455  -1.132  1.00102.56   C
ATOM    199  CD2 PHE A  43     -10.879  61.940  -0.858  1.00102.55   C
ATOM    200  C   PHE A  43      -7.122  62.539   0.520  1.00100.54   C
ATOM    201  O   PHE A  43      -7.730  63.228   1.329  1.00100.77   O
ATOM    202  N   GLY A  44      -6.234  61.622   0.884  1.00 99.52   N
ATOM    203  CA  GLY A  44      -5.900  61.394   2.275  1.00 97.99   C
ATOM    204  C   GLY A  44      -5.234  62.589   2.928  1.00 96.82   C
ATOM    205  O   GLY A  44      -5.690  63.069   3.961  1.00 96.61   O
ATOM    206  N   HIS A  45      -4.158  63.086   2.327  1.00 95.65   N
ATOM    207  CA  HIS A  45      -3.456  64.206   2.911  1.00 94.58   C
ATOM    208  CB  HIS A  45      -2.292  64.654   2.030  1.00 95.01   C
ATOM    209  CG  HIS A  45      -1.130  63.711   2.046  1.00 97.01   C
ATOM    210  ND1 HIS A  45      -1.213  62.437   2.569  1.00 98.89   N
ATOM    211  CE1 HIS A  45      -0.045  61.834   2.443  1.00 99.47   C
ATOM    212  NE2 HIS A  45       0.792  62.670   1.857  1.00 99.52   N
ATOM    213  CD2 HIS A  45       0.141  63.853   1.601  1.00 98.78   C
ATOM    214  C   HIS A  45      -4.457  65.319   3.098  1.00 93.30   C
ATOM    215  O   HIS A  45      -4.514  65.946   4.148  1.00 93.25   O
ATOM    216  N   LYS A  46      -5.279  65.536   2.083  1.00 91.70   N
ATOM    217  CA  LYS A  46      -6.273  66.594   2.146  1.00 90.09   C
ATOM    218  CB  LYS A  46      -7.113  66.605   0.871  1.00 90.45   C
ATOM    219  CG  LYS A  46      -6.415  67.243  -0.315  1.00 91.82   C
ATOM    220  CD  LYS A  46      -7.393  67.429  -1.463  1.00 94.36   C
ATOM    221  CE  LYS A  46      -6.966  68.552  -2.394  1.00 95.41   C
ATOM    222  NZ  LYS A  46      -8.149  69.175  -3.055  1.00 95.69   N
ATOM    223  C   LYS A  46      -7.181  66.498   3.372  1.00 88.34   C
ATOM    224  O   LYS A  46      -7.293  67.442   4.145  1.00 87.84   O
ATOM    225  N   ALA A  47      -7.815  65.344   3.540  1.00 86.35   N
ATOM    226  CA  ALA A  47      -8.778  65.128   4.612  1.00 84.67   C
ATOM    227  CB  ALA A  47      -9.488  63.794   4.418  1.00 84.81   C
ATOM    228  C   ALA A  47      -8.198  65.208   6.019  1.00 83.51   C
ATOM    229  O   ALA A  47      -8.923  65.462   6.982  1.00 83.28   O
ATOM    230  N   GLY A  48      -6.898  64.985   6.144  1.00 81.98   N
ATOM    231  CA  GLY A  48      -6.271  65.016   7.448  1.00 79.87   C
ATOM    232  C   GLY A  48      -5.703  66.380   7.758  1.00 78.18   C
ATOM    233  O   GLY A  48      -5.739  66.845   8.896  1.00 77.76   O
ATOM    234  N   MET A  49      -5.182  67.027   6.727  1.00 76.60   N
ATOM    235  CA  MET A  49      -4.537  68.311   6.900  1.00 75.08   C
ATOM    236  CB  MET A  49      -3.672  68.640   5.696  1.00 75.38   C
ATOM    237  CG  MET A  49      -2.742  69.803   5.906  1.00 75.39   C
ATOM    238  SD  MET A  49      -3.536  71.242   5.264  1.00 74.34   S
ATOM    239  CE  MET A  49      -4.234  70.574   3.734  1.00 75.11   C
ATOM    240  C   MET A  49      -5.573  69.386   7.193  1.00 73.99   C
ATOM    241  O   MET A  49      -5.240  70.537   7.492  1.00 73.76   O
ATOM    242  N   ALA A  50      -6.838  68.992   7.109  1.00 72.28   N
ATOM    243  CA  ALA A  50      -7.912  69.846   7.577  1.00 70.35   C
ATOM    244  CB  ALA A  50      -9.180  69.652   6.758  1.00 70.70   C
ATOM    245  C   ALA A  50      -8.128  69.361   8.981  1.00 68.78   C
```

Figure 2-7

```
ATOM    246  O   ALA A  50      -7.813  70.068   9.933  1.00 68.26   O
ATOM    247  N   ALA A  51      -8.634  68.127   9.084  1.00 67.23   N
ATOM    248  CA  ALA A  51      -8.947  67.459  10.364  1.00 65.66   C
ATOM    249  CB  ALA A  51      -8.905  65.940  10.226  1.00 65.82   C
ATOM    250  C   ALA A  51      -8.038  67.903  11.488  1.00 64.12   C
ATOM    251  O   ALA A  51      -8.343  67.696  12.665  1.00 63.67   O
ATOM    252  N   LEU A  52      -6.923  68.509  11.102  1.00 62.23   N
ATOM    253  CA  LEU A  52      -6.018  69.091  12.042  1.00 60.93   C
ATOM    254  CB  LEU A  52      -4.768  69.614  11.318  1.00 60.68   C
ATOM    255  CG  LEU A  52      -3.424  69.602  12.065  1.00 59.93   C
ATOM    256  CD1 LEU A  52      -2.450  70.614  11.509  1.00 59.18   C
ATOM    257  CD2 LEU A  52      -3.611  69.833  13.541  1.00 59.72   C
ATOM    258  C   LEU A  52      -6.804  70.244  12.643  1.00 60.45   C
ATOM    259  O   LEU A  52      -6.841  70.423  13.865  1.00 60.21   O
ATOM    260  N   GLN A  53      -7.468  71.007  11.776  1.00 60.13   N
ATOM    261  CA  GLN A  53      -8.184  72.212  12.216  1.00 59.47   C
ATOM    262  CB  GLN A  53      -8.689  73.052  11.034  1.00 60.10   C
ATOM    263  CG  GLN A  53      -7.554  73.762  10.275  1.00 60.42   C
ATOM    264  CD  GLN A  53      -7.489  75.252  10.521  1.00 62.07   C
ATOM    265  OE1 GLN A  53      -8.507  75.890  10.810  1.00 62.73   O
ATOM    266  NE2 GLN A  53      -6.295  75.823  10.377  1.00 62.14   N
ATOM    267  C   GLN A  53      -9.268  71.933  13.237  1.00 58.53   C
ATOM    268  O   GLN A  53      -9.250  72.511  14.327  1.00 58.68   O
ATOM    269  N   THR A  54     -10.197  71.042  12.927  1.00 57.53   N
ATOM    270  CA  THR A  54     -11.194  70.745  13.940  1.00 57.13   C
ATOM    271  CB  THR A  54     -12.283  69.722  13.471  1.00 57.31   C
ATOM    272  OG1 THR A  54     -12.356  68.609  14.381  1.00 59.36   O
ATOM    273  CG2 THR A  54     -11.918  69.093  12.148  1.00 57.78   C
ATOM    274  C   THR A  54     -10.497  70.329  15.227  1.00 56.29   C
ATOM    275  O   THR A  54     -10.926  70.715  16.314  1.00 56.09   O
ATOM    276  N   VAL A  55      -9.400  69.580  15.114  1.00 55.11   N
ATOM    277  CA  VAL A  55      -8.679  69.153  16.317  1.00 53.86   C
ATOM    278  CB  VAL A  55      -7.590  68.121  16.022  1.00 53.84   C
ATOM    279  CG1 VAL A  55      -6.506  68.169  17.107  1.00 53.20   C
ATOM    280  CG2 VAL A  55      -8.209  66.739  15.932  1.00 54.78   C
ATOM    281  C   VAL A  55      -8.018  70.300  17.043  1.00 52.77   C
ATOM    282  O   VAL A  55      -8.159  70.456  18.261  1.00 52.24   O
ATOM    283  N   THR A  56      -7.269  71.087  16.297  1.00 51.44   N
ATOM    284  CA  THR A  56      -6.584  72.179  16.903  1.00 51.10   C
ATOM    285  CB  THR A  56      -5.872  72.966  15.806  1.00 51.35   C
ATOM    286  OG1 THR A  56      -5.395  72.056  14.814  1.00 49.29   O
ATOM    287  CG2 THR A  56      -4.631  73.655  16.322  1.00 50.86   C
ATOM    288  C   THR A  56      -7.679  73.010  17.569  1.00 51.96   C
ATOM    289  O   THR A  56      -7.665  73.218  18.795  1.00 51.67   O
ATOM    290  N   LYS A  57      -8.655  73.447  16.769  1.00 52.29   N
ATOM    291  CA  LYS A  57      -9.740  74.275  17.297  1.00 53.47   C
ATOM    292  CB  LYS A  57     -10.889  74.460  16.281  1.00 53.91   C
ATOM    293  CG  LYS A  57     -10.672  75.629  15.303  1.00 55.41   C
ATOM    294  CD  LYS A  57     -11.300  75.364  13.893  1.00 61.36   C
ATOM    295  CE  LYS A  57     -12.825  75.655  13.801  1.00 62.12   C
ATOM    296  NZ  LYS A  57     -13.651  74.451  13.472  1.00 64.22   N
ATOM    297  C   LYS A  57     -10.276  73.730  18.596  1.00 53.59   C
ATOM    298  O   LYS A  57     -10.300  74.444  19.600  1.00 54.01   O
ATOM    299  N   ALA A  58     -10.685  72.466  18.603  1.00 53.10   N
ATOM    300  CA  ALA A  58     -11.234  71.921  19.827  1.00 54.08   C
ATOM    301  CB  ALA A  58     -11.993  70.615  19.563  1.00 54.48   C
ATOM    302  C   ALA A  58     -10.180  71.757  20.933  1.00 54.71   C
```

Figure 2-8

```
ATOM    303  O   ALA A  58     -10.521  71.677  22.128  1.00 54.58   O
ATOM    304  N   ALA A  59      -8.902  71.726  20.541  1.00 55.02   N
ATOM    305  CA  ALA A  59      -7.821  71.613  21.519  1.00 54.53   C
ATOM    306  CB  ALA A  59      -6.498  71.372  20.845  1.00 54.33   C
ATOM    307  C   ALA A  59      -7.790  72.932  22.241  1.00 54.31   C
ATOM    308  O   ALA A  59      -7.709  72.985  23.478  1.00 53.65   O
ATOM    309  N   ASN A  60      -7.889  74.006  21.463  1.00 54.16   N
ATOM    310  CA  ASN A  60      -7.831  75.335  22.059  1.00 53.77   C
ATOM    311  CB  ASN A  60      -7.544  76.399  21.017  1.00 53.02   C
ATOM    312  CG  ASN A  60      -7.174  77.704  21.649  1.00 52.46   C
ATOM    313  OD1 ASN A  60      -7.226  77.838  22.876  1.00 47.05   O
ATOM    314  ND2 ASN A  60      -6.769  78.675  20.833  1.00 53.35   N
ATOM    315  C   ASN A  60      -9.107  75.678  22.839  1.00 54.01   C
ATOM    316  O   ASN A  60      -9.084  76.352  23.871  1.00 53.99   O
ATOM    317  N   LYS A  61     -10.231  75.195  22.349  1.00 54.65   N
ATOM    318  CA  LYS A  61     -11.489  75.495  23.016  1.00 54.97   C
ATOM    319  CB  LYS A  61     -12.652  74.886  22.249  1.00 55.25   C
ATOM    320  CG  LYS A  61     -14.015  75.374  22.676  1.00 57.85   C
ATOM    321  CD  LYS A  61     -15.078  74.915  21.654  1.00 60.48   C
ATOM    322  CE  LYS A  61     -15.233  73.387  21.630  1.00 60.44   C
ATOM    323  NZ  LYS A  61     -15.859  72.903  20.365  1.00 60.53   N
ATOM    324  C   LYS A  61     -11.442  74.929  24.418  1.00 54.43   C
ATOM    325  O   LYS A  61     -11.883  75.579  25.371  1.00 54.29   O
ATOM    326  N   LEU A  62     -10.870  73.727  24.535  1.00 53.43   N
ATOM    327  CA  LEU A  62     -10.784  73.022  25.813  1.00 52.54   C
ATOM    328  CB  LEU A  62     -10.619  71.520  25.571  1.00 52.90   C
ATOM    329  CG  LEU A  62     -11.852  70.696  25.149  1.00 54.10   C
ATOM   .330  CD1 LEU A  62     -12.881  71.495  24.333  1.00 54.92   C
ATOM    331  CD2 LEU A  62     -11.452  69.424  24.412  1.00 52.66   C
ATOM    332  C   LEU A  62      -9.687  73.515  26.766  1.00 51.60   C
ATOM    333  O   LEU A  62      -9.613  73.050  27.893  1.00 52.01   O
ATOM    334  N   GLY A  63      -8.853  74.454  26.327  1.00 49.71   N
ATOM    335  CA  GLY A  63      -7.751  74.926  27.143  1.00 48.39   C
ATOM    336  C   GLY A  63      -6.415  74.158  27.116  1.00 47.53   C
ATOM    337  O   GLY A  63      -5.857  73.930  28.168  1.00 47.49   O
ATOM    338  N   VAL A  64      -5.885  73.784  25.948  1.00 46.60   N
ATOM    339  CA  VAL A  64      -4.610  73.080  25.872  1.00 45.98   C
ATOM    340  CB  VAL A  64      -4.606  72.074  24.705  1.00 46.22   C
ATOM    341  CG1 VAL A  64      -3.175  71.781  24.240  1.00 45.29   C
ATOM    342  CG2 VAL A  64      -5.361  70.804  25.068  1.00 45.46   C
ATOM    343  C   VAL A  64      -3.541  74.105  25.608  1.00 45.82   C
ATOM    344  O   VAL A  64      -3.790  75.034  24.899  1.00 46.92   O
ATOM    345  N   LYS A  65      -2.345  73.981  26.141  1.00 45.52   N
ATOM    346  CA  LYS A  65      -1.347  75.007  25.824  1.00 45.67   C
ATOM    347  CB  LYS A  65      -0.442  75.276  27.016  1.00 46.38   C
ATOM    348  CG  LYS A  65      -1.127  75.801  28.266  1.00 49.62   C
ATOM    349  CD  LYS A  65      -0.049  76.420  29.172  1.00 55.66   C
ATOM    350  CE  LYS A  65      -0.561  77.611  30.012  1.00 58.41   C
ATOM    351  NZ  LYS A  65       0.477  78.011  31.028  1.00 59.73   N
ATOM    352  C   LYS A  65      -0.471  74.662  24.622  1.00 45.73   C
ATOM    353  O   LYS A  65       0.119  75.545  23.955  1.00 44.67   O
ATOM    354  N   VAL A  66      -0.321  73.366  24.377  1.00 45.29   N
ATOM    355  CA  VAL A  66       0.470  72.949  23.251  1.00 44.99   C
ATOM    356  CB  VAL A  66       1.957  72.810  23.610  1.00 45.40   C
ATOM    357  CG1 VAL A  66       2.739  72.280  22.421  1.00 44.89   C
ATOM    358  CG2 VAL A  66       2.548  74.132  24.092  1.00 44.68   C
ATOM    359  C   VAL A  66       0.009  71.616  22.695  1.00 45.42   C
```

Figure 2-9

```
ATOM    360  O   VAL A  66      -0.255  70.668  23.431  1.00 45.13   O
ATOM    361  N   ILE A  67      -0.142  71.583  21.381  1.00 45.54   N
ATOM    362  CA  ILE A  67      -0.277  70.340  20.669  1.00 45.44   C
ATOM    363  CB  ILE A  67      -1.506  70.371  19.821  1.00 46.11   C
ATOM    364  CG1 ILE A  67      -1.449  71.596  18.914  1.00 48.34    C
ATOM    365  CD1 ILE A  67      -1.971  71.346  17.526  1.00 51.30   C
ATOM    366  CG2 ILE A  67      -2.725  70.417  20.718  1.00 47.74   C
ATOM    367  C   ILE A  67       0.983  70.213  19.793  1.00 44.18   C
ATOM    368  O   ILE A  67       1.383  71.167  19.096  1.00 43.56   O
ATOM    369  N   THR A  68       1.664  69.076  19.883  1.00 42.76   N
ATOM    370  CA  THR A  68       2.792  68.849  18.975  1.00 41.96   C
ATOM    371  CB  THR A  68       4.095  68.512  19.707  1.00 42.16   C
ATOM    372  OG1 THR A  68       4.549  69.668  20.414  1.00 42.53   O
ATOM    373  CG2 THR A  68       5.208  68.276  18.711  1.00 41.94   C
ATOM    374  C   THR A  68       2.405  67.769  17.969  1.00 41.17   C
ATOM    375  O   THR A  68       2.124  66.616  18.331  1.00 39.89   O
ATOM    376  N   VAL A  69       2.358  68.159  16.703  1.00 40.92   N
ATOM    377  CA  VAL A  69       1.939  67.224  15.674  1.00 41.88   C
ATOM    378  CB  VAL A  69       0.732  67.764  14.877  1.00 42.23   C
ATOM    379  CG1 VAL A  69      -0.461  67.993  15.830  1.00 42.14   C
ATOM    380  CG2 VAL A  69       1.119  69.011  14.142  1.00 41.38   C
ATOM    381  C   VAL A  69       3.053  66.693  14.754  1.00 41.55   C
ATOM    382  O   VAL A  69       3.956  67.401  14.347  1.00 40.42   O
ATOM    383  N   TYR A  70       2.979  65.402  14.482  1.00 42.89   N
ATOM    384  CA  TYR A  70       4.012  64.703  13.711  1.00 43.28   C
ATOM    385  CB  TYR A  70       4.549  63.558  14.547  1.00 43.25   C
ATOM    386  CG  TYR A  70       5.836  62.904  14.083  1.00 42.86   C
ATOM    387  CD1 TYR A  70       6.105  61.588  14.424  1.00 44.75   C
ATOM    388  CE1 TYR A  70       7.273  60.978  14.055  1.00 43.61   C
ATOM    389  CZ  TYR A  70       8.208  61.680  13.350  1.00 44.85   C
ATOM    390  OH  TYR A  70       9.372  61.050  12.986  1.00 47.71   O
ATOM    391  CE2 TYR A  70       7.974  62.993  12.992  1.00 43.44   C
ATOM    392  CD2 TYR A  70       6.789  63.597  13.360  1.00 41.87   C
ATOM    393  C   TYR A  70       3.380  64.095  12.502  1.00 43.68   C
ATOM    394  O   TYR A  70       2.583  63.151  12.612  1.00 43.57   O
ATOM    395  N   ALA A  71       3.729  64.632  11.352  1.00 44.92   N
ATOM    396  CA  ALA A  71       3.173  64.143  10.109  1.00 46.49   C
ATOM    397  CB  ALA A  71       2.650  65.298   9.285  1.00 46.85   C
ATOM    398  C   ALA A  71       4.228  63.364   9.336  1.00 47.08   C
ATOM    399  O   ALA A  71       4.135  62.137   9.371  1.00 48.16   O
ATOM    400  OXT ALA A  71       5.138  63.954   8.727  1.00 46.68   N
ATOM    401  N   PRO A  91       1.934  72.313   4.204  1.00107.62  N
ATOM    402  CA  PRO A  91       2.907  73.411   4.406  1.00107.60  C
ATOM    403  CB  PRO A  91       4.210  72.820   3.868  1.00107.70  C
ATOM    404  CG  PRO A  91       3.870  71.398   3.481  1.00107.66  C
ATOM    405  CD  PRO A  91       2.401  71.369   3.180  1.00107.68  C
ATOM    406  C   PRO A  91       2.497  74.601   3.561  1.00107.60  C
ATOM    407  O   PRO A  91       2.093  75.631   4.097  1.00107.78  O
ATOM    408  N   VAL A  92       2.591  74.456   2.245  1.00107.41  N
ATOM    409  CA  VAL A  92       2.185  75.533   1.355  1.00107.15  C
ATOM    410  CB  VAL A  92       2.886  75.454  -0.010  1.00107.27  C
ATOM    411  CG1 VAL A  92       1.997  76.021  -1.105  1.00107.31  C
ATOM    412  CG2 VAL A  92       4.216  76.185   0.041  1.00107.35  C
ATOM    413  C   VAL A  92       0.672  75.572   1.169  1.00106.78  C
ATOM    414  O   VAL A  92       0.132  76.559   0.705  1.00106.94  O
ATOM    415  N   GLU A  93      -0.020  74.498   1.518  1.00106.32  N
ATOM    416  CA  GLU A  93      -1.477  74.507   1.445  1.00105.87  C
```

Figure 2-10

```
ATOM    417  CB  GLU A  93      -2.032  73.235   0.803  1.00106.05   C
ATOM    418  CG  GLU A  93      -2.560  73.434  -0.613  1.00106.93   C
ATOM    419  CD  GLU A  93      -3.064  72.146  -1.258  1.00108.23   C
ATOM    420  OE1 GLU A  93      -2.229  71.357  -1.745  1.00108.62   O
ATOM    421  OE2 GLU A  93      -4.296  71.919  -1.294  1.00108.68   O
ATOM    422  C   GLU A  93      -2.021  74.701   2.847  1.00105.26   C
ATOM    423  O   GLU A  93      -3.230  74.641   3.087  1.00105.17   O
ATOM    424  N   PHE A  94      -1.106  74.934   3.778  1.00104.24   N
ATOM    425  CA  PHE A  94      -1.498  75.216   5.139  1.00102.95   C
ATOM    426  CB  PHE A  94      -0.466  74.696   6.133  1.00102.90   C
ATOM    427  CG  PHE A  94      -1.037  74.429   7.479  1.00102.15   C
ATOM    428  CD1 PHE A  94      -0.365  74.802   8.619  1.00101.45   C
ATOM    429  CE1 PHE A  94      -0.918  74.564   9.848  1.00101.49   C
ATOM    430  CZ  PHE A  94      -2.155  73.944   9.946  1.00101.13   C
ATOM    431  CE2 PHE A  94      -2.828  73.576   8.817  1.00100.42   C
ATOM    432  CD2 PHE A  94      -2.275  73.820   7.595  1.00101.17   C
ATOM    433  C   PHE A  94      -1.669  76.720   5.271  1.00102.13   C
ATOM    434  O   PHE A  94      -2.730  77.193   5.668  1.00102.08   O
ATOM    435  N   TYR A  95      -0.623  77.460   4.913  1.00100.92   N
ATOM    436  CA  TYR A  95      -0.663  78.913   4.967  1.00100.05   C
ATOM    437  CB  TYR A  95       0.629  79.527   4.417  1.00100.16   C
ATOM    438  CG  TYR A  95       0.665  81.038   4.521  1.00100.91   C
ATOM    439  CD1 TYR A  95      -0.282  81.718   5.272  1.00101.47   C
ATOM    440  CE1 TYR A  95      -0.266  83.096   5.381  1.00102.03   C
ATOM    441  CZ  TYR A  95       0.710  83.820   4.740  1.00102.07   C
ATOM    442  OH  TYR A  95       0.706  85.191   4.875  1.00102.25   O
ATOM    443  CE2 TYR A  95       1.676  83.174   3.984  1.00102.04   C
ATOM    444  CD2 TYR A  95       1.649  81.786   3.878  1.00101.86   C
ATOM    445  C   TYR A  95      -1.865  79.484   4.213  1.00 99.23   C
ATOM    446  O   TYR A  95      -2.749  80.102   4.809  1.00 99.20   O
ATOM    447  N   ASP A  96      -1.908  79.268   2.905  1.00 97.78   N
ATOM    448  CA  ASP A  96      -2.959  79.861   2.092  1.00 96.34   C
ATOM    449  CB  ASP A  96      -2.628  79.721   0.599  1.00 96.77   C
ATOM    450  CG  ASP A  96      -2.922  78.329   0.060  1.00 97.51   C
ATOM    451  OD1 ASP A  96      -4.024  77.806   0.331  1.00 98.05   O
ATOM    452  OD2 ASP A  96      -2.120  77.686  -0.653  1.00 98.18   O
ATOM    453  C   ASP A  96      -4.365  79.328   2.388  1.00 94.78   C
ATOM    454  O   ASP A  96      -5.350  79.947   1.993  1.00 94.97   O
ATOM    455  N   ASN A  97      -4.475  78.217   3.107  1.00 92.47   N
ATOM    456  CA  ASN A  97      -5.802  77.628   3.306  1.00 90.17   C
ATOM    457  CB  ASN A  97      -5.877  76.275   2.590  1.00 90.45   C
ATOM    458  CG  ASN A  97      -7.226  76.030   1.950  1.00 90.49   C
ATOM    459  OD1 ASN A  97      -8.226  75.817   2.635  1.00 90.44   O
ATOM    460  ND2 ASN A  97      -7.262  76.076   0.626  1.00 90.32   N
ATOM    461  C   ASN A  97      -6.348  77.469   4.734  1.00 88.40   C
ATOM    462  O   ASN A  97      -7.566  77.400   4.935  1.00 88.09   O
ATOM    463  N   TYR A  98      -5.477  77.406   5.732  1.00 85.98   N
ATOM    464  CA  TYR A  98      -5.976  77.115   7.070  1.00 83.30   C
ATOM    465  CB  TYR A  98      -5.658  75.656   7.413  1.00 83.44   C
ATOM    466  CG  TYR A  98      -6.528  74.654   6.691  1.00 82.53   C
ATOM    467  CD1 TYR A  98      -6.097  74.037   5.526  1.00 81.65   C
ATOM    468  CE1 TYR A  98      -6.900  73.123   4.870  1.00 81.74   C
ATOM    469  CZ  TYR A  98      -8.150  72.821   5.387  1.00 82.50   C
ATOM    470  OH  TYR A  98      -8.976  71.916   4.763  1.00 82.69   O
ATOM    471  CE2 TYR A  98      -8.593  73.426   6.536  1.00 82.47   C
ATOM    472  CD2 TYR A  98      -7.786  74.335   7.176  1.00 82.81   C
ATOM    473  C   TYR A  98      -5.472  78.043   8.165  1.00 81.40   C
```

Figure 2-11

```
ATOM    474  O   TYR A  98      -6.134  78.212   9.194  1.00 80.78  O
ATOM    475  N   VAL A  99      -4.312  78.647   7.914  1.00 79.12  N
ATOM    476  CA  VAL A  99      -3.620  79.520   8.858  1.00 77.06  C
ATOM    477  CB  VAL A  99      -2.250  79.930   8.316  1.00 76.89  C
ATOM    478  CG1 VAL A  99      -1.778  81.220   8.961  1.00 76.38  C
ATOM    479  CG2 VAL A  99      -1.257  78.816   8.523  1.00 76.99  C
ATOM    480  C   VAL A  99      -4.371  80.776   9.281  1.00 76.12  C
ATOM    481  O   VAL A  99      -4.359  81.122  10.463  1.00 76.00  O
ATOM    482  N   PRO A 100      -5.038  81.453   8.344  1.00 74.96  N
ATOM    483  CA  PRO A 100      -5.745  82.683   8.681  1.00 73.81  C
ATOM    484  CB  PRO A 100      -6.607  82.935   7.443  1.00 74.37  C
ATOM    485  CG  PRO A 100      -5.900  82.246   6.332  1.00 74.25  C
ATOM    486  CD  PRO A 100      -5.237  81.075   6.934  1.00 74.75  C
ATOM    487  C   PRO A 100      -6.628  82.366   9.859  1.00 72.76  C
ATOM    488  O   PRO A 100      -6.444  82.914  10.938  1.00 72.80  O
ATOM    489  N   GLU A 101      -7.573  81.461   9.652  1.00 71.36  N
ATOM    490  CA  GLU A 101      -8.447  81.034  10.718  1.00 70.78  C
ATOM    491  CB  GLU A 101      -9.148  79.740  10.331  1.00 70.91  C
ATOM    492  CG  GLU A 101     -10.652  79.863  10.260  1.00 71.70  C
ATOM    493  CD  GLU A 101     -11.364  78.590  10.663  1.00 73.74  C
ATOM    494  OE1 GLU A 101     -11.254  77.580   9.934  1.00 74.70  O
ATOM    495  OE2 GLU A 101     -12.048  78.602  11.710  1.00 75.14  O
ATOM    496  C   GLU A 101      -7.695  80.833  12.039  1.00 70.43  C
ATOM    497  O   GLU A 101      -8.296  80.909  13.119  1.00 70.11  O
ATOM    498  N   LEU A 102      -6.384  80.591  11.949  1.00 69.72  N
ATOM    499  CA  LEU A 102      -5.563  80.347  13.133  1.00 68.88  C
ATOM    500  CB  LEU A 102      -4.351  79.455  12.824  1.00 69.25  C
ATOM    501  CG  LEU A 102      -4.600  77.959  12.613  1.00 69.77  C
ATOM    502  CD1 LEU A 102      -3.262  77.243  12.439  1.00 71.59  C
ATOM    503  CD2 LEU A 102      -5.375  77.358  13.752  1.00 69.88  C
ATOM    504  C   LEU A 102      -5.120  81.632  13.797  1.00 67.73  C
ATOM    505  O   LEU A 102      -4.709  81.638  14.954  1.00 67.66  O
ATOM    506  N   HIS A 103      -5.163  82.735  13.077  1.00 66.23  N
ATOM    507  CA  HIS A 103      -4.928  83.977  13.792  1.00 64.74  C
ATOM    508  CB  HIS A 103      -4.538  85.109  12.859  1.00 64.74  C
ATOM    509  CG  HIS A 103      -3.228  85.756  13.194  1.00 65.62  C
ATOM    510  ND1 HIS A 103      -2.395  85.309  14.196  1.00 66.06  N
ATOM    511  CE1 HIS A 103      -1.307  86.058  14.224  1.00 68.88  C
ATOM    512  NE2 HIS A 103      -1.395  86.962  13.265  1.00 68.13  N
ATOM    513  CD2 HIS A 103      -2.579  86.784  12.594  1.00 67.35  C
ATOM    514  C   HIS A 103      -6.291  84.224  14.442  1.00 63.04  C
ATOM    515  O   HIS A 103      -6.398  84.411  15.652  1.00 62.24  O
ATOM    516  N   ALA A 104      -7.341  84.161  13.624  1.00 61.35  N
ATOM    517  CA  ALA A 104      -8.704  84.408  14.101  1.00 59.62  C
ATOM    518  CB  ALA A 104      -9.739  83.923  13.088  1.00 59.48  C
ATOM    519  C   ALA A 104      -8.903  83.727  15.449  1.00 58.29  C
ATOM    520  O   ALA A 104      -9.599  84.226  16.339  1.00 57.02  O
ATOM    521  N   ASN A 105      -8.251  82.584  15.607  1.00 56.89  N
ATOM    522  CA  ASN A 105      -8.402  81.865  16.847  1.00 54.95  C
ATOM    523  CB  ASN A 105      -8.738  80.412  16.573  1.00 55.09  C
ATOM    524  CG  ASN A 105     -10.197  80.218  16.309  1.00 55.52  C
ATOM    525  OD1 ASN A 105     -10.946  79.798  17.189  1.00 56.13  O
ATOM    526  ND2 ASN A 105     -10.625  80.541  15.102  1.00 56.23  N
ATOM    527  C   ASN A 105      -7.270  82.023  17.854  1.00 53.36  C
ATOM    528  O   ASN A 105      -7.276  81.347  18.874  1.00 53.58  O
ATOM    529  N   ASN A 106      -6.319  82.917  17.578  1.00 51.31  N
ATOM    530  CA  ASN A 106      -5.262  83.218  18.540  1.00 49.71  C
```

Figure 2-12

```
ATOM    531  CB  ASN A 106      -5.916  83.605  19.884  1.00 48.24   C
ATOM    532  CG  ASN A 106      -4.973  84.347  20.815  1.00 45.54   C
ATOM    533  OD1 ASN A 106      -3.992  84.972  20.372  1.00 36.94   O
ATOM    534  ND2 ASN A 106      -5.257  84.268  22.132  1.00 39.78   N
ATOM    535  C   ASN A 106      -4.229  82.070  18.712  1.00 50.06   C
ATOM    536  O   ASN A 106      -3.585  81.924  19.757  1.00 49.24   O
ATOM    537  N   VAL A 107      -4.058  81.265  17.668  1.00 50.59   N
ATOM    538  CA  VAL A 107      -3.107  80.165  17.715  1.00 50.96   C
ATOM    539  CB  VAL A 107      -3.587  79.013  16.865  1.00 51.12   C
ATOM    540  CG1 VAL A 107      -2.590  77.849  16.908  1.00 51.69   C
ATOM    541  CG2 VAL A 107      -4.966  78.574  17.334  1.00 51.89   C
ATOM    542  C   VAL A 107      -1.720  80.541  17.244  1.00 50.97   C
ATOM    543  O   VAL A 107      -1.555  81.006  16.153  1.00 51.27   O
ATOM    544  N   LYS A 108      -0.711  80.343  18.076  1.00 51.88   N
ATOM    545  CA  LYS A 108       0.654  80.556  17.622  1.00 52.64   C
ATOM    546  CB  LYS A 108       1.599  80.781  18.798  1.00 51.93   C
ATOM    547  CG  LYS A 108       2.948  81.312  18.373  1.00 50.63   C
ATOM    548  CD  LYS A 108       3.843  81.635  19.545  1.00 47.73   C
ATOM    549  CE  LYS A 108       5.015  82.485  19.080  1.00 46.89   C
ATOM    550  NZ  LYS A 108       6.076  82.724  20.116  1.00 46.02   N
ATOM    551  C   LYS A 108       1.060  79.314  16.801  1.00 53.45   C
ATOM    552  O   LYS A 108       0.571  78.223  17.052  1.00 53.54   O
ATOM    553  N   ILE A 109       1.911  79.506  15.799  1.00 54.73   N
ATOM    554  CA  ILE A 109       2.374  78.438  14.919  1.00 54.87   C
ATOM    555  CB  ILE A 109       2.040  78.749  13.447  1.00 54.96   C
ATOM    556  CG1 ILE A 109       0.539  78.965  13.243  1.00 55.16   C
ATOM    557  CD1 ILE A 109      -0.353  77.870  13.828  1.00 53.23   C
ATOM    558  CG2 ILE A 109       2.565  77.626  12.528  1.00 55.32   C
ATOM    559  C   ILE A 109       3.875  78.371  15.028  1.00 55.17   C
ATOM    560  O   ILE A 109       4.548  79.388  14.871  1.00 54.78   O
ATOM    561  N   GLN A 110       4.412  77.179  15.279  1.00 55.43   N
ATOM    562  CA  GLN A 110       5.861  77.028  15.373  1.00 55.99   C
ATOM    563  CB  GLN A 110       6.323  77.297  16.801  1.00 56.12   C
ATOM    564  CG  GLN A 110       7.748  77.796  16.921  1.00 58.52   C
ATOM    565  CD  GLN A 110       7.970  78.558  18.220  1.00 60.69   C
ATOM    566  OE1 GLN A 110       8.868  79.397  18.304  1.00 60.77   O
ATOM    567  NE2 GLN A 110       7.145  78.271  19.231  1.00 59.83   N
ATOM    568  C   GLN A 110       6.243  75.622  14.931  1.00 55.64   C
ATOM    569  O   GLN A 110       5.407  74.722  14.923  1.00 55.72   O
ATOM    570  N   MET A 111       7.499  75.417  14.588  1.00 55.37   N
ATOM    571  CA  MET A 111       7.889  74.114  14.076  1.00 56.39   C
ATOM    572  CB  MET A 111       8.027  74.193  12.556  1.00 56.31   C
ATOM    573  CG  MET A 111       6.693  74.434  11.849  1.00 59.75   C
ATOM    574  SD  MET A 111       6.857  75.667  10.521  1.00 67.16   S
ATOM    575  CE  MET A 111       8.787  75.661  10.411  1.00 66.60   C
ATOM    576  C   MET A 111       9.155  73.543  14.720  1.00 55.75   C
ATOM    577  O   MET A 111       9.900  74.268  15.360  1.00 55.49   O
ATOM    578  N   ILE A 112       9.374  72.240  14.573  1.00 55.38   N
ATOM    579  CA  ILE A 112      10.598  71.611  15.095  1.00 56.05   C
ATOM    580  CB  ILE A 112      10.340  70.778  16.381  1.00 55.65   C
ATOM    581  CG1 ILE A 112       8.974  70.107  16.323  1.00 55.23   C
ATOM    582  CD1 ILE A 112       8.606  69.424  17.589  1.00 57.21   C
ATOM    583  CG2 ILE A 112      10.474  71.620  17.599  1.00 55.06   C
ATOM    584  C   ILE A 112      11.236  70.682  14.087  1.00 56.57   C
ATOM    585  O   ILE A 112      10.567  70.085  13.272  1.00 55.89   O
ATOM    586  N   GLY A 113      12.540  70.544  14.161  1.00 58.25   N
ATOM    587  CA  GLY A 113      13.202  69.604  13.293  1.00 61.42   C
```

Figure 2-13

```
ATOM    588  C   GLY A 113      14.331  70.168  12.464  1.00 63.49  C
ATOM    589  O   GLY A 113      15.074  71.072  12.867  1.00 63.22  O
ATOM    590  N   GLU A 114      14.488  69.584  11.293  1.00 65.48  N
ATOM    591  CA  GLU A 114      15.513  70.045  10.400  1.00 67.94  C
ATOM    592  CB  GLU A 114      16.475  68.920  10.030  1.00 67.98  C
ATOM    593  CG  GLU A 114      17.341  68.548  11.227  1.00 68.11  C
ATOM    594  CD  GLU A 114      18.593  67.774  10.870  1.00 69.64  C
ATOM    595  OE1 GLU A 114      18.610  66.538  11.060  1.00 69.21  O
ATOM    596  OE2 GLU A 114      19.573  68.406  10.426  1.00 70.63  O
ATOM    597  C   GLU A 114      14.774  70.708   9.254  1.00 69.36  C
ATOM    598  O   GLU A 114      14.406  70.103   8.253  1.00 69.10  O
ATOM    599  N   THR A 115      14.495  71.975   9.505  1.00 71.65  N
ATOM    600  CA  THR A 115      13.772  72.843   8.604  1.00 73.76  C
ATOM    601  CB  THR A 115      13.229  74.049   9.414  1.00 73.81  C
ATOM    602  OG1 THR A 115      14.282  74.612  10.228  1.00 72.97  O
ATOM    603  CG2 THR A 115      12.188  73.569  10.438  1.00 73.79  C
ATOM    604  C   THR A 115      14.724  73.312   7.518  1.00 75.19  C
ATOM    605  O   THR A 115      14.372  73.366   6.351  1.00 75.39  O
ATOM    606  N   ASP A 116      15.949  73.604   7.931  1.00 77.29  N
ATOM    607  CA  ASP A 116      16.991  74.121   7.064  1.00 79.32  C
ATOM    608  CB  ASP A 116      18.296  74.207   7.853  1.00 79.58  C
ATOM    609  CG  ASP A 116      18.071  74.133   9.364  1.00 81.15  C
ATOM    610  OD1 ASP A 116      17.378  75.022   9.908  1.00 82.97  O
ATOM    611  OD2 ASP A 116      18.539  73.221  10.091  1.00 81.76  O
ATOM    612  C   ASP A 116      17.208  73.261   5.823  1.00 80.54  C
ATOM    613  O   ASP A 116      17.586  73.769   4.770  1.00 81.09  O
ATOM    614  N   ALA A 117      16.969  71.960   5.944  1.00 81.87  N
ATOM    615  CA  ALA A 117      17.201  71.037   4.840  1.00 82.87  C
ATOM    616  CB  ALA A 117      17.747  69.714   5.361  1.00 82.71  C
ATOM    617  C   ALA A 117      15.946  70.807   4.014  1.00 83.71  C
ATOM    618  O   ALA A 117      15.894  69.876   3.220  1.00 83.73  O
ATOM    619  N   LEU A 118      14.943  71.664   4.191  1.00 84.96  N
ATOM    620  CA  LEU A 118      13.670  71.529   3.475  1.00 86.16  C
ATOM    621  CB  LEU A 118      12.515  71.971   4.372  1.00 86.24  C
ATOM    622  CG  LEU A 118      11.972  71.017   5.428  1.00 86.95  C
ATOM    623  CD1 LEU A 118      11.446  71.814   6.600  1.00 87.28  C
ATOM    624  CD2 LEU A 118      10.876  70.117   4.840  1.00 87.99  C
ATOM    625  C   LEU A 118      13.616  72.326   2.170  1.00 86.94  C
ATOM    626  O   LEU A 118      14.511  73.115   1.874  1.00 86.79  O
ATOM    627  N   PRO A 119      12.569  72.084   1.383  1.00 87.86  N
ATOM    628  CA  PRO A 119      12.322  72.814   0.134  1.00 88.76  C
ATOM    629  CB  PRO A 119      11.083  72.111  -0.439  1.00 88.74  C
ATOM    630  CG  PRO A 119      11.047  70.779   0.239  1.00 88.44  C
ATOM    631  CD  PRO A 119      11.568  71.027   1.613  1.00 88.01  C
ATOM    632  C   PRO A 119      11.995  74.287   0.404  1.00 89.43  C
ATOM    633  O   PRO A 119      11.443  74.575   1.462  1.00 89.78  O
ATOM    634  N   ALA A 120      12.324  75.184  -0.528  1.00 89.84  N
ATOM    635  CA  ALA A 120      12.062  76.616  -0.371  1.00 90.12  C
ATOM    636  CB  ALA A 120      12.569  77.389  -1.568  1.00 89.90  C
ATOM    637  C   ALA A 120      10.577  76.858  -0.173  1.00 90.31  C
ATOM    638  O   ALA A 120      10.142  77.169   0.933  1.00 89.99  O
ATOM    639  N   GLN A 121       9.800  76.710  -1.243  1.00 90.80  N
ATOM    640  CA  GLN A 121       8.356  76.854  -1.143  1.00 91.36  C
ATOM    641  CB  GLN A 121       7.646  75.986  -2.184  1.00 91.56  C
ATOM    642  CG  GLN A 121       7.346  76.684  -3.502  1.00 92.44  C
ATOM    643  CD  GLN A 121       6.393  75.877  -4.372  1.00 94.07  C
ATOM    644  OE1 GLN A 121       5.176  75.936  -4.188  1.00 94.81  O
```

Figure 2-14

```
ATOM    645  NE2 GLN A 121       6.943  75.118  -5.315  1.00 94.10   N
ATOM    646  C   GLN A 121       7.909  76.459   0.261  1.00 91.47   C
ATOM    647  O   GLN A 121       7.146  77.176   0.905  1.00 91.59   O
ATOM    648  N   THR A 122       8.395  75.317   0.737  1.00 91.76   N
ATOM    649  CA  THR A 122       8.074  74.862   2.082  1.00 91.75   C
ATOM    650  CB  THR A 122       8.595  73.454   2.296  1.00 91.83   C
ATOM    651  OG1 THR A 122       7.555  72.523   1.981  1.00 91.69   O
ATOM    652  CG2 THR A 122       8.846  73.206   3.772  1.00 92.02   C
ATOM    653  C   THR A 122       8.631  75.785   3.162  1.00 91.61   C
ATOM    654  O   THR A 122       7.873  76.447   3.860  1.00 91.80   O
ATOM    655  N   PHE A 123       9.952  75.837   3.289  1.00 91.42   N
ATOM    656  CA  PHE A 123      10.582  76.665   4.303  1.00 91.38   C
ATOM    657  CB  PHE A 123      12.058  76.822   3.991  1.00 91.20   C
ATOM    658  CG  PHE A 123      12.851  77.424   5.104  1.00 90.87   C
ATOM    659  CD1 PHE A 123      12.488  77.227   6.416  1.00 91.08   C
ATOM    660  CE1 PHE A 123      13.229  77.774   7.437  1.00 90.48   C
ATOM    661  CZ  PHE A 123      14.342  78.517   7.153  1.00 90.17   C
ATOM    662  CE2 PHE A 123      14.713  78.714   5.853  1.00 90.21   C
ATOM    663  CD2 PHE A 123      13.976  78.167   4.838  1.00 90.19   C
ATOM    664  C   PHE A 123       9.934  78.030   4.305  1.00 91.81   C
ATOM    665  O   PHE A 123       9.610  78.590   5.345  1.00 92.06   O
ATOM    666  N   GLU A 124       9.747  78.557   3.109  1.00 92.09   N
ATOM    667  CA  GLU A 124       9.161  79.860   2.934  1.00 92.08   C
ATOM    668  CB  GLU A 124       9.017  80.152   1.446  1.00 92.34   C
ATOM    669  CG  GLU A 124      10.341  80.340   0.728  1.00 92.82   C
ATOM    670  CD  GLU A 124      10.273  81.454  -0.297  1.00 93.12   C
ATOM    671  OE1 GLU A 124       9.409  81.381  -1.193  1.00 92.80   O
ATOM    672  OE2 GLU A 124      11.065  82.415  -0.196  1.00 93.37   O
ATOM    673  C   GLU A 124       7.808  79.932   3.600  1.00 91.88   C
ATOM    674  O   GLU A 124       7.562  80.814   4.409  1.00 92.11   O
ATOM    675  N   ALA A 125       6.932  78.998   3.258  1.00 91.51   N
ATOM    676  CA  ALA A 125       5.577  78.988   3.803  1.00 91.44   C
ATOM    677  CB  ALA A 125       4.710  77.964   3.085  1.00 91.57   C
ATOM    678  C   ALA A 125       5.545  78.732   5.304  1.00 91.25   C
ATOM    679  O   ALA A 125       4.631  79.174   6.000  1.00 91.18   O
ATOM    680  N   LEU A 126       6.531  78.004   5.808  1.00 90.77   N
ATOM    681  CA  LEU A 126       6.552  77.730   7.227  1.00 90.12   C
ATOM    682  CB  LEU A 126       7.439  76.534   7.543  1.00 90.18   C
ATOM    683  CG  LEU A 126       6.844  75.241   6.976  1.00 90.17   C
ATOM    684  CD1 LEU A 126       7.717  74.049   7.307  1.00 91.42   C
ATOM    685  CD2 LEU A 126       5.431  75.022   7.474  1.00 89.66   C
ATOM    686  C   LEU A 126       6.980  78.986   7.953  1.00 89.60   C
ATOM    687  O   LEU A 126       6.321  79.404   8.897  1.00 89.49   O
ATOM    688  N   THR A 127       8.049  79.615   7.480  1.00 88.99   N
ATOM    689  CA  THR A 127       8.509  80.852   8.092  1.00 88.57   C
ATOM    690  CB  THR A 127       9.795  81.336   7.445  1.00 88.35   C
ATOM    691  OG1 THR A 127      10.878  80.532   7.908  1.00 88.48   O
ATOM    692  CG2 THR A 127      10.159  82.712   7.964  1.00 88.38   C
ATOM    693  C   THR A 127       7.435  81.935   8.013  1.00 88.37   C
ATOM    694  O   THR A 127       7.365  82.817   8.866  1.00 88.81   O
ATOM    695  N   ALA A 128       6.590  81.874   6.994  1.00 87.63   N
ATOM    696  CA  ALA A 128       5.532  82.863   6.888  1.00 86.93   C
ATOM    697  CB  ALA A 128       4.754  82.704   5.599  1.00 86.98   C
ATOM    698  C   ALA A 128       4.630  82.640   8.070  1.00 86.24   C
ATOM    699  O   ALA A 128       4.338  83.560   8.822  1.00 86.42   O
ATOM    700  N   ALA A 129       4.204  81.394   8.230  1.00 85.26   N
ATOM    701  CA  ALA A 129       3.328  81.014   9.321  1.00 83.97   C
```

Figure 2-15

```
ATOM    702  CB  ALA A 129       3.047  79.545   9.269  1.00 84.21   C
ATOM    703  C   ALA A 129       3.939  81.392  10.664  1.00 83.12   C
ATOM    704  O   ALA A 129       3.255  81.439  11.674  1.00 83.02   O
ATOM    705  N   GLU A 130       5.229  81.678  10.676  1.00 81.87   N
ATOM    706  CA  GLU A 130       5.849  82.046  11.924  1.00 80.82   C
ATOM    707  CB  GLU A 130       7.305  81.569  11.989  1.00 80.94   C
ATOM    708  CG  GLU A 130       7.427  80.060  12.142  1.00 81.03   C
ATOM    709  CD  GLU A 130       8.845  79.579  12.403  1.00 80.60   C
ATOM    710  OE1 GLU A 130       8.990  78.423  12.850  1.00 80.79   O
ATOM    711  OE2 GLU A 130       9.810  80.336  12.159  1.00 79.92   O
ATOM    712  C   GLU A 130       5.747  83.536  12.163  1.00 79.97   C
ATOM    713  O   GLU A 130       5.139  83.959  13.136  1.00 79.87   O
ATOM    714  N   GLU A 131       6.336  84.325  11.266  1.00 78.85   N
ATOM    715  CA  GLU A 131       6.377  85.778  11.413  1.00 77.40   C
ATOM    716  CB  GLU A 131       7.155  86.417  10.268  1.00 77.65   C
ATOM    717  CG  GLU A 131       8.635  86.070  10.280  1.00 78.98   C
ATOM    718  CD  GLU A 131       9.267  86.190   8.895  1.00 81.19   C
ATOM    719  OE1 GLU A 131       8.552  86.024   7.876  1.00 81.08   O
ATOM    720  OE2 GLU A 131      10.486  86.451   8.820  1.00 80.23   O
ATOM    721  C   GLU A 131       4.999  86.413  11.579  1.00 76.01   C
ATOM    722  O   GLU A 131       4.879  87.554  12.030  1.00 76.23   O
ATOM    723  N   LEU A 132       3.965  85.649  11.254  1.00 73.80   N
ATOM    724  CA  LEU A 132       2.596  86.102  11.389  1.00 72.14   C
ATOM    725  CB  LEU A 132       1.691  85.323  10.443  1.00 72.00   C
ATOM    726  CG  LEU A 132       0.271  85.874  10.272  1.00 73.37   C
ATOM    727  CD1 LEU A 132       0.248  86.870   9.126  1.00 74.33   C
ATOM    728  CD2 LEU A 132      -0.738  84.769  10.011  1.00 73.31   C
ATOM    729  C   LEU A 132       2.115  85.869  12.814  1.00 70.70   C
ATOM    730  O   LEU A 132       1.106  86.435  13.223  1.00 70.87   O
ATOM    731  N   THR A 133       2.849  85.051  13.571  1.00 67.97   N
ATOM    732  CA  THR A 133       2.426  84.650  14.908  1.00 65.03   C
ATOM    733  CB  THR A 133       2.063  83.146  14.917  1.00 65.89   C
ATOM    734  OG1 THR A 133       3.130  82.382  14.324  1.00 64.47   O
ATOM    735  CG2 THR A 133       0.865  82.851  14.023  1.00 65.15   C
ATOM    736  C   THR A 133       3.455  84.902  15.999  1.00 63.35   C
ATOM    737  O   THR A 133       3.216  84.594  17.150  1.00 62.33   O
ATOM    738  N   LYS A 134       4.602  85.462  15.658  1.00 61.91   N
ATOM    739  CA  LYS A 134       5.618  85.647  16.673  1.00 61.43   C
ATOM    740  CB  LYS A 134       6.753  86.542  16.174  1.00 61.84   C
ATOM    741  CG  LYS A 134       6.652  87.996  16.567  1.00 63.83   C
ATOM    742  CD  LYS A 134       7.913  88.730  16.142  1.00 66.10   C
ATOM    743  CE  LYS A 134       9.128  88.021  16.688  1.00 69.36   C
ATOM    744  NZ  LYS A 134      10.356  88.314  15.905  1.00 72.18   N
ATOM    745  C   LYS A 134       5.003  86.159  17.997  1.00 60.68   C
ATOM    746  O   LYS A 134       5.568  85.960  19.095  1.00 60.21   O
ATOM    747  N   ASN A 135       3.829  86.787  17.910  1.00 59.06   N
ATOM    748  CA  ASN A 135       3.173  87.286  19.124  1.00 56.39   C
ATOM    749  CB  ASN A 135       2.949  88.793  19.090  1.00 56.90   C
ATOM    750  CG  ASN A 135       3.720  89.477  18.019  1.00 55.77   C
ATOM    751  OD1 ASN A 135       4.849  89.927  18.241  1.00 54.86   O
ATOM    752  ND2 ASN A 135       3.104  89.602  16.837  1.00 55.00   N
ATOM    753  C   ASN A 135       1.837  86.678  19.496  1.00 54.59   C
ATOM    754  O   ASN A 135       1.201  87.189  20.417  1.00 54.72   O
ATOM    755  N   ASN A 136       1.362  85.629  18.843  1.00 52.92   N
ATOM    756  CA  ASN A 136       0.152  85.025  19.411  1.00 51.63   C
ATOM    757  CB  ASN A 136      -0.516  83.962  18.525  1.00 52.18   C
ATOM    758  CG  ASN A 136      -1.459  84.574  17.455  1.00 53.33   C
```

Figure 2-16

```
ATOM    759  OD1 ASN A 136      -2.402  83.928  16.959  1.00 49.49   O
ATOM    760  ND2 ASN A 136      -1.174  85.814  17.082  1.00 53.42   N
ATOM    761  C   ASN A 136       0.413  84.511  20.857  1.00 50.80   C
ATOM    762  O   ASN A 136       1.595  84.427  21.335  1.00 49.85   O
ATOM    763  N   THR A 137      -0.696  84.223  21.549  1.00 48.76   N
ATOM    764  CA  THR A 137      -0.686  83.874  22.961  1.00 46.96   C
ATOM    765  CB  THR A 137      -0.741  85.145  23.911  1.00 47.44   C
ATOM    766  OG1 THR A 137      -2.064  85.698  23.987  1.00 42.44   O
ATOM    767  CG2 THR A 137       0.126  86.283  23.417  1.00 46.13   C
ATOM    768  C   THR A 137      -1.804  82.894  23.317  1.00 46.83   C
ATOM    769  O   THR A 137      -2.087  82.683  24.475  1.00 47.04   O
ATOM    770  N   GLY A 138      -2.462  82.310  22.330  1.00 46.40   N
ATOM    771  CA  GLY A 138      -3.366  81.208  22.621  1.00 46.80   C
ATOM    772  C   GLY A 138      -2.633  79.862  22.416  1.00 47.03   C
ATOM    773  O   GLY A 138      -1.387  79.774  22.476  1.00 45.52   O
ATOM    774  N   LEU A 139      -3.414  78.823  22.149  1.00 47.55   N
ATOM    775  CA  LEU A 139      -2.864  77.481  21.912  1.00 48.95   C
ATOM    776  CB  LEU A 139      -3.892  76.533  21.300  1.00 48.25   C
ATOM    777  CG  LEU A 139      -3.169  75.257  20.828  1.00 49.40   C
ATOM    778  CD1 LEU A 139      -3.064  74.269  21.974  1.00 48.81   C
ATOM    779  CD2 LEU A 139      -3.831  74.573  19.640  1.00 48.37   C
ATOM    780  C   LEU A 139      -1.677  77.493  20.982  1.00 49.15   C
ATOM    781  O   LEU A 139      -1.636  78.266  20.051  1.00 50.09   O
ATOM    782  N   ILE A 140      -0.720  76.613  21.215  1.00 49.70   N
ATOM    783  CA  ILE A 140       0.428  76.554  20.326  1.00 49.90   C
ATOM    784  CB  ILE A 140       1.707  76.566  21.101  1.00 49.67   C
ATOM    785  CG1 ILE A 140       1.865  77.893  21.812  1.00 48.76   C
ATOM    786  CD1 ILE A 140       3.031  77.879  22.759  1.00 49.26   C
ATOM    787  CG2 ILE A 140       2.866  76.271  20.171  1.00 49.87   C
ATOM    788  C   ILE A 140       0.396  75.317  19.445  1.00 49.82   C
ATOM    789  O   ILE A 140       0.237  74.198  19.935  1.00 49.72   O
ATOM    790  N   LEU A 141       0.546  75.530  18.144  1.00 49.57   N
ATOM    791  CA  LEU A 141       0.547  74.428  17.200  1.00 49.69   C
ATOM    792  CB  LEU A 141      -0.262  74.766  15.958  1.00 49.79   C
ATOM    793  CG  LEU A 141      -0.236  73.704  14.855  1.00 50.43   C
ATOM    794  CD1 LEU A 141      -0.665  72.319  15.357  1.00 48.15   C
ATOM    795  CD2 LEU A 141      -1.108  74.165  13.682  1.00 46.92   C
ATOM    796  C   LEU A 141       1.976  74.127  16.823  1.00 49.02   C
ATOM    797  O   LEU A 141       2.618  74.917  16.151  1.00 48.95   O
ATOM    798  N   ASN A 142       2.469  72.990  17.305  1.00 48.40   N
ATOM    799  CA  ASN A 142       3.825  72.549  17.043  1.00 48.20   C
ATOM    800  CB  ASN A 142       4.465  72.185  18.371  1.00 48.59   C
ATOM    801  CG  ASN A 142       5.928  72.512  18.415  1.00 50.53   C
ATOM    802  OD1 ASN A 142       6.392  73.449  17.764  1.00 52.01   O
ATOM    803  ND2 ASN A 142       6.678  71.735  19.197  1.00 54.19   N
ATOM    804  C   ASN A 142       3.897  71.374  16.002  1.00 47.43   C
ATOM    805  O   ASN A 142       3.560  70.218  16.291  1.00 46.40   O
ATOM    806  N   PHE A 143       4.329  71.722  14.791  1.00 47.42   N
ATOM    807  CA  PHE A 143       4.465  70.819  13.637  1.00 46.93   C
ATOM    808  CB  PHE A 143       4.403  71.637  12.327  1.00 47.60   C
ATOM    809  CG  PHE A 143       3.035  71.823  11.801  1.00 49.42   C
ATOM    810  CD1 PHE A 143       2.254  70.725  11.481  1.00 51.22   C
ATOM    811  CE1 PHE A 143       0.975  70.878  11.017  1.00 52.34   C
ATOM    812  CZ  PHE A 143       0.454  72.155  10.874  1.00 54.91   C
ATOM    813  CE2 PHE A 143       1.232  73.262  11.194  1.00 51.47   C
ATOM    814  CD2 PHE A 143       2.511  73.087  11.655  1.00 51.08   C
ATOM    815  C   PHE A 143       5.832  70.190  13.635  1.00 45.29   C
```

Figure 2-17

```
ATOM    816  O   PHE A 143       6.811  70.890  13.444  1.00 44.99   O
ATOM    817  N   ALA A 144       5.922  68.884  13.821  1.00 43.92   N
ATOM    818  CA  ALA A 144       7.239  68.260  13.682  1.00 43.09   C
ATOM    819  CB  ALA A 144       7.359  67.038  14.581  1.00 42.74   C
ATOM    820  C   ALA A 144       7.432  67.909  12.202  1.00 41.63   C
ATOM    821  O   ALA A 144       6.699  67.110  11.650  1.00 40.95   O
ATOM    822  N   LEU A 145       8.383  68.553  11.550  1.00 41.29   N
ATOM    823  CA  LEU A 145       8.591  68.319  10.128  1.00 41.55   C
ATOM    824  CB  LEU A 145       8.079  69.485   9.278  1.00 42.18   C
ATOM    825  CG  LEU A 145       6.576  69.346   9.050  1.00 43.68   C
ATOM    826  CD1 LEU A 145       5.875  70.324   9.955  1.00 43.98   C
ATOM    827  CD2 LEU A 145       6.224  69.583   7.595  1.00 45.11   C
ATOM    828  C   LEU A 145      10.043  68.039   9.817  1.00 41.21   C
ATOM    829  O   LEU A 145      10.936  68.789  10.227  1.00 40.78   O
ATOM    830  N   ASN A 146      10.269  66.960   9.067  1.00 40.67   N
ATOM    831  CA  ASN A 146      11.628  66.495   8.838  1.00 40.71   C
ATOM    832  CB  ASN A 146      12.429  67.496   8.045  1.00 41.58   C
ATOM    833  CG  ASN A 146      13.443  66.826   7.188  1.00 45.60   C
ATOM    834  OD1 ASN A 146      13.394  65.600   7.038  1.00 51.65   O
ATOM    835  ND2 ASN A 146      14.371  67.594   6.611  1.00 48.14   N
ATOM    836  C   ASN A 146      12.295  66.270  10.185  1.00 39.01   C
ATOM    837  O   ASN A 146      13.460  66.604  10.427  1.00 37.30   O
ATOM    838  N   TYR A 147      11.524  65.656  11.059  1.00 37.79   N
ATOM    839  CA  TYR A 147      11.952  65.524  12.443  1.00 36.91   C
ATOM    840  CB  TYR A 147      10.894  66.146  13.399  1.00 35.86   C
ATOM    841  CG  TYR A 147      11.126  65.770  14.843  1.00 34.67   C
ATOM    842  CD1 TYR A 147      11.813  66.612  15.725  1.00 31.76   C
ATOM    843  CE1 TYR A 147      12.043  66.224  17.042  1.00 27.36   C
ATOM    844  CZ  TYR A 147      11.581  64.983  17.477  1.00 27.08   C
ATOM    845  OH  TYR A 147      11.749  64.519  18.783  1.00 22.64   O
ATOM    846  CE2 TYR A 147      10.942  64.158  16.610  1.00 29.47   C
ATOM    847  CD2 TYR A 147      10.699  64.551  15.317  1.00 33.67   C
ATOM    848  C   TYR A 147      12.249  64.088  12.823  1.00 35.21   C
ATOM    849  O   TYR A 147      11.569  63.162  12.388  1.00 34.72   O
ATOM    850  N   GLY A 148      13.268  63.919  13.642  1.00 34.54   N
ATOM    851  CA  GLY A 148      13.594  62.602  14.179  1.00 33.35   C
ATOM    852  C   GLY A 148      14.155  62.722  15.581  1.00 32.18   C
ATOM    853  O   GLY A 148      15.115  63.468  15.804  1.00 31.34   O
ATOM    854  N   GLY A 149      13.581  61.971  16.524  1.00 31.06   N
ATOM    855  CA  GLY A 149      14.041  62.029  17.902  1.00 30.02   C
ATOM    856  C   GLY A 149      15.548  61.832  18.082  1.00 29.38   C
ATOM    857  O   GLY A 149      16.254  62.664  18.695  1.00 27.57   O
ATOM    858  N   ARG A 150      16.048  60.725  17.534  1.00 29.27   N
ATOM    859  CA  ARG A 150      17.450  60.410  17.748  1.00 29.09   C
ATOM    860  CB  ARG A 150      17.855  59.040  17.195  1.00 28.69   C
ATOM    861  CG  ARG A 150      17.678  57.861  18.172  1.00 27.58   C
ATOM    862  CD  ARG A 150      17.724  56.538  17.443  1.00 24.83   C
ATOM    863  NE  ARG A 150      17.583  55.358  18.289  1.00 26.11   N
ATOM    864  CZ  ARG A 150      17.550  54.157  17.770  1.00 25.86   C
ATOM    865  NH1 ARG A 150      17.681  54.037  16.445  1.00 28.00   N
ATOM    866  NH2 ARG A 150      17.371  53.091  18.531  1.00 26.81   N
ATOM    867  C   ARG A 150      18.305  61.512  17.180  1.00 30.69   C
ATOM    868  O   ARG A 150      19.264  61.918  17.812  1.00 29.84   O
ATOM    869  N   ALA A 151      17.946  62.017  15.997  1.00 31.70   N
ATOM    870  CA  ALA A 151      18.741  63.072  15.394  1.00 33.31   C
ATOM    871  CB  ALA A 151      18.295  63.340  13.956  1.00 32.00   C
ATOM    872  C   ALA A 151      18.704  64.355  16.236  1.00 34.74   C
```

Figure 2-18

```
ATOM    873  O   ALA A 151      19.712  65.043  16.369  1.00 35.44   O
ATOM    874  N   GLU A 152      17.543  64.674  16.802  1.00 35.83   N
ATOM    875  CA  GLU A 152      17.418  65.868  17.618  1.00 37.15   C
ATOM    876  CB  GLU A 152      15.983  66.089  18.106  1.00 36.79   C
ATOM    877  CG  GLU A 152      15.866  66.979  19.327  1.00 38.99   C
ATOM    878  CD  GLU A 152      14.422  67.166  19.771  1.00 42.53   C
ATOM    879  OE1 GLU A 152      13.707  66.163  20.004  1.00 44.20   O
ATOM    880  OE2 GLU A 152      13.983  68.319  19.877  1.00 41.36   O
ATOM    881  C   GLU A 152      18.411  65.831  18.764  1.00 37.37   C
ATOM    882  O   GLU A 152      19.177  66.753  18.947  1.00 37.75   O
ATOM    883  N   ILE A 153      18.412  64.743  19.513  1.00 38.47   N
ATOM    884  CA  ILE A 153      19.336  64.603  20.591  1.00 38.62   C
ATOM    885  CB  ILE A 153      19.183  63.238  21.242  1.00 38.10   C
ATOM    886  CG1 ILE A 153      17.886  63.176  22.059  1.00 38.18   C
ATOM    887  CD1 ILE A 153      17.489  61.774  22.464  1.00 39.99   C
ATOM    888  CG2 ILE A 153      20.397  62.893  22.109  1.00 34.91   C
ATOM    889  C   ILE A 153      20.722  64.772  20.002  1.00 41.23   C
ATOM    890  O   ILE A 153      21.589  65.442  20.594  1.00 41.74   O
ATOM    891  N   THR A 154      20.937  64.193  18.828  1.00 42.79   N
ATOM    892  CA  THR A 154      22.260  64.239  18.241  1.00 45.39   C
ATOM    893  CB  THR A 154      22.348  63.426  16.916  1.00 45.15   C
ATOM    894  OG1 THR A 154      21.849  62.101  17.113  1.00 44.11   O
ATOM    895  CG2 THR A 154      23.796  63.175  16.568  1.00 45.70   C
ATOM    896  C   THR A 154      22.578  65.701  18.013  1.00 46.88   C
ATOM    897  O   THR A 154      23.571  66.209  18.513  1.00 46.44   O
ATOM    898  N   GLN A 155      21.694  66.368  17.282  1.00 49.66   N
ATOM    899  CA  GLN A 155      21.825  67.787  16.975  1.00 52.78   C
ATOM    900  CB  GLN A 155      20.547  68.302  16.327  1.00 53.46   C
ATOM    901  CG  GLN A 155      20.354  69.835  16.393  1.00 56.87   C
ATOM    902  CD  GLN A 155      19.737  70.339  17.706  1.00 60.42   C
ATOM    903  OE1 GLN A 155      18.639  69.932  18.097  1.00 61.66   O
ATOM    904  NE2 GLN A 155      20.436  71.243  18.366  1.00 62.39   N
ATOM    905  C   GLN A 155      22.074  68.570  18.242  1.00 54.42   C
ATOM    906  O   GLN A 155      22.847  69.523  18.250  1.00 54.76   O
ATOM    907  N   ALA A 156      21.416  68.160  19.317  1.00 56.03   N
ATOM    908  CA  ALA A 156      21.598  68.829  20.595  1.00 57.99   C
ATOM    909  CB  ALA A 156      20.442  68.529  21.547  1.00 57.88   C
ATOM    910  C   ALA A 156      22.916  68.456  21.240  1.00 58.89   C
ATOM    911  O   ALA A 156      23.641  69.319  21.696  1.00 59.03   O
ATOM    912  N   LEU A 157      23.235  67.172  21.308  1.00 60.58   N
ATOM    913  CA  LEU A 157      24.490  66.818  21.958  1.00 62.01   C
ATOM    914  CB  LEU A 157      24.586  65.315  22.276  1.00 61.87   C
ATOM    915  CG  LEU A 157      24.305  64.875  23.743  1.00 60.90   C
ATOM    916  CD1 LEU A 157      22.841  64.946  24.118  1.00 59.01   C
ATOM    917  CD2 LEU A 157      24.824  63.495  24.067  1.00 59.17   C
ATOM    918  C   LEU A 157      25.638  67.327  21.102  1.00 63.38   C
ATOM    919  O   LEU A 157      26.778  67.358  21.544  1.00 63.80   O
ATOM    920  N   LYS A 158      25.306  67.782  19.893  1.00 64.80   N
ATOM    921  CA  LYS A 158      26.294  68.299  18.961  1.00 66.10   C
ATOM    922  CB  LYS A 158      25.781  68.188  17.523  1.00 66.40   C
ATOM    923  CG  LYS A 158      26.873  68.045  16.459  1.00 68.10   C
ATOM    924  CD  LYS A 158      26.282  67.770  15.056  1.00 70.32   C
ATOM    925  CE  LYS A 158      27.134  66.768  14.270  1.00 72.59   C
ATOM    926  NZ  LYS A 158      26.799  66.656  12.812  1.00 73.21   N
ATOM    927  C   LYS A 158      26.612  69.747  19.282  1.00 66.72   C
ATOM    928  O   LYS A 158      27.759  70.107  19.464  1.00 66.43   O
ATOM    929  N   LEU A 159      25.579  70.576  19.355  1.00 68.14   N
```

Figure 2-19

```
ATOM    930  CA  LEU A 159      25.749  71.998  19.640  1.00 68.99  C
ATOM    931  CB  LEU A 159      24.422  72.745  19.477  1.00 68.93  C
ATOM    932  CG  LEU A 159      23.837  72.950  18.076  1.00 69.53  C
ATOM    933  CD1 LEU A 159      22.378  73.404  18.141  1.00 70.00  C
ATOM    934  CD2 LEU A 159      24.647  73.957  17.278  1.00 71.07  C
ATOM    935  C   LEU A 159      26.319  72.204  21.046  1.00 69.63  C
ATOM    936  O   LEU A 159      26.999  73.203  21.309  1.00 69.31  O
ATOM    937  N   ILE A 160      26.034  71.261  21.943  1.00 70.78  N
ATOM    938  CA  ILE A 160      26.548  71.298  23.317  1.00 72.24  C
ATOM    939  CB  ILE A 160      25.850  70.240  24.195  1.00 72.35  C
ATOM    940  CG1 ILE A 160      24.428  70.683  24.543  1.00 72.01  C
ATOM    941  CD1 ILE A 160      23.713  69.730  25.479  1.00 71.40  C
ATOM    942  CG2 ILE A 160      26.658  69.957  25.472  1.00 71.35  C
ATOM    943  C   ILE A 160      28.072  71.112  23.367  1.00 73.46  C
ATOM    944  O   ILE A 160      28.752  71.770  24.141  1.00 73.75  O
ATOM    945  N   SER A 161      28.599  70.228  22.530  1.00 74.86  N
ATOM    946  CA  SER A 161      30.039  69.972  22.457  1.00 76.30  C
ATOM    947  CB  SER A 161      30.287  68.818  21.503  1.00 76.28  C
ATOM    948  OG  SER A 161      29.651  69.079  20.262  1.00 75.57  O
ATOM    949  C   SER A 161      30.818  71.180  21.946  1.00 77.50  C
ATOM    950  O   SER A 161      31.892  71.500  22.449  1.00 77.49  O
ATOM    951  N   GLN A 162      30.286  71.822  20.913  1.00 79.09  N
ATOM    952  CA  GLN A 162      30.895  73.028  20.365  1.00 80.72  C
ATOM    953  CB  GLN A 162      30.101  73.524  19.149  1.00 80.55  C
ATOM    954  CG  GLN A 162      30.694  74.736  18.439  1.00 81.36  C
ATOM    955  CD  GLN A 162      31.837  74.395  17.487  1.00 81.76  C
ATOM    956  OE1 GLN A 162      31.836  73.343  16.850  1.00 81.96  O
ATOM    957  NE2 GLN A 162      32.801  75.298  17.378  1.00 81.19  N
ATOM    958  C   GLN A 162      30.925  74.083  21.473  1.00 81.66  C
ATOM    959  O   GLN A 162      31.988  74.525  21.890  1.00 81.94  O
ATOM    960  N   ASP A 163      29.750  74.455  21.968  1.00 82.84  N
ATOM    961  CA  ASP A 163      29.651  75.407  23.064  1.00 83.92  C
ATOM    962  CB  ASP A 163      28.206  75.498  23.578  1.00 83.78  C
ATOM    963  CG  ASP A 163      27.313  76.377  22.695  1.00 83.72  C
ATOM    964  OD1 ASP A 163      27.752  76.803  21.609  1.00 83.62  O
ATOM    965  OD2 ASP A 163      26.148  76.693  23.010  1.00 83.30  O
ATOM    966  C   ASP A 163      30.603  75.052  24.212  1.00 84.67  C
ATOM    967  O   ASP A 163      31.190  75.938  24.819  1.00 84.68  O
ATOM    968  N   VAL A 164      30.749  73.762  24.503  1.00 85.74  N
ATOM    969  CA  VAL A 164      31.638  73.300  25.567  1.00 86.99  C
ATOM    970  CB  VAL A 164      31.489  71.794  25.830  1.00 87.12  C
ATOM    971  CG1 VAL A 164      32.741  71.243  26.520  1.00 86.86  C
ATOM    972  CG2 VAL A 164      30.255  71.512  26.655  1.00 87.40  C
ATOM    973  C   VAL A 164      33.095  73.514  25.219  1.00 87.89  C
ATOM    974  O   VAL A 164      33.902  73.894  26.073  1.00 88.09  O
ATOM    975  N   ALA A 165      33.434  73.215  23.968  1.00 88.83  N
ATOM    976  CA  ALA A 165      34.790  73.402  23.471  1.00 89.70  C
ATOM    977  CB  ALA A 165      34.915  72.855  22.048  1.00 89.73  C
ATOM    978  C   ALA A 165      35.095  74.893  23.502  1.00 90.11  C
ATOM    979  O   ALA A 165      35.982  75.345  24.228  1.00 90.25  O
ATOM    980  N   ASP A 166      34.335  75.644  22.709  1.00 90.59  N
ATOM    981  CA  ASP A 166      34.395  77.101  22.678  1.00 90.87  C
ATOM    982  CB  ASP A 166      33.233  77.649  21.857  1.00 91.06  C
ATOM    983  CG  ASP A 166      33.433  77.454  20.378  1.00 91.81  C
ATOM    984  OD1 ASP A 166      34.603  77.309  19.952  1.00 93.29  O
ATOM    985  OD2 ASP A 166      32.487  77.438  19.565  1.00 92.48  O
ATOM    986  C   ASP A 166      34.373  77.710  24.083  1.00 90.93  C
```

Figure 2-20

```
ATOM    987  O   ASP A 166      34.114  78.898  24.254  1.00 90.91   O
ATOM    988  N   ALA A 167      34.594  76.860  25.079  1.00 91.01   N
ATOM    989  CA  ALA A 167      34.799  77.270  26.467  1.00 90.97   C
ATOM    990  CB  ALA A 167      35.930  78.302  26.549  1.00 91.11   C
ATOM    991  C   ALA A 167      33.615  77.707  27.337  1.00 90.86   C
ATOM    992  O   ALA A 167      33.794  77.858  28.547  1.00 90.73   O
ATOM    993  N   LYS A 168      32.424  77.918  26.782  1.00 90.78   N
ATOM    994  CA  LYS A 168      31.336  78.330  27.683  1.00 90.66   C
ATOM    995  CB  LYS A 168      30.554  79.551  27.199  1.00 91.00   C
ATOM    996  CG  LYS A 168      29.834  80.244  28.371  1.00 91.87   C
ATOM    997  CD  LYS A 168      30.625  80.052  29.686  1.00 93.42   C
ATOM    998  CE  LYS A 168      29.856  80.570  30.913  1.00 95.04   C
ATOM    999  NZ  LYS A 168      30.352  80.036  32.228  1.00 94.12   N
ATOM   1000  C   LYS A 168      30.393  77.251  28.200  1.00 90.12   C
ATOM   1001  O   LYS A 168      29.181  77.290  27.998  1.00 90.38   O
ATOM   1002  N   ALA A 169      30.974  76.300  28.908  1.00 89.22   N
ATOM   1003  CA  ALA A 169      30.214  75.247  29.531  1.00 88.14   C
ATOM   1004  CB  ALA A 169      29.304  74.576  28.524  1.00 88.29   C
ATOM   1005  C   ALA A 169      31.247  74.288  30.047  1.00 87.30   C
ATOM   1006  O   ALA A 169      32.149  73.897  29.320  1.00 87.17   O
ATOM   1007  N   ASN A 170      31.156  73.967  31.325  1.00 86.39   N
ATOM   1008  CA  ASN A 170      32.043  72.985  31.909  1.00 85.64   C
ATOM   1009  CB  ASN A 170      32.289  73.293  33.390  1.00 86.02   C
ATOM   1010  CG  ASN A 170      33.497  72.560  33.950  1.00 86.56   C
ATOM   1011  OD1 ASN A 170      34.546  72.501  33.308  1.00 87.96   O
ATOM   1012  ND2 ASN A 170      33.360  72.007  35.152  1.00 86.72   N
ATOM   1013  C   ASN A 170      31.345  71.647  31.765  1.00 84.68   C
ATOM   1014  O   ASN A 170      30.121  71.561  31.895  1.00 84.73   O
ATOM   1015  N   PRO A 171      32.100  70.606  31.451  1.00 83.44   N
ATOM   1016  CA  PRO A 171      31.523  69.266  31.352  1.00 82.22   C
ATOM   1017  CB  PRO A 171      32.762  68.370  31.260  1.00 82.41   C
ATOM   1018  CG  PRO A 171      33.883  69.264  31.721  1.00 82.97   C
ATOM   1019  CD  PRO A 171      33.536  70.603  31.138  1.00 83.43   C
ATOM   1020  C   PRO A 171      30.719  68.961  32.617  1.00 80.56   C
ATOM   1021  O   PRO A 171      29.566  68.566  32.527  1.00 80.72   O
ATOM   1022  N   GLY A 172      31.325  69.165  33.782  1.00 78.85   N
ATOM   1023  CA  GLY A 172      30.669  68.907  35.051  1.00 76.11   C
ATOM   1024  C   GLY A 172      29.393  69.714  35.165  1.00 74.27   C
ATOM   1025  O   GLY A 172      28.609  69.532  36.100  1.00 74.45   O
ATOM   1026  N   ASP A 173      29.183  70.603  34.198  1.00 71.89   N
ATOM   1027  CA  ASP A 173      28.004  71.451  34.161  1.00 69.43   C
ATOM   1028  CB  ASP A 173      28.412  72.894  33.831  1.00 70.05   C
ATOM   1029  CG  ASP A 173      28.877  73.683  35.068  1.00 71.23   C
ATOM   1030  OD1 ASP A 173      29.980  73.409  35.605  1.00 72.32   O
ATOM   1031  OD2 ASP A 173      28.195  74.606  35.572  1.00 72.07   O
ATOM   1032  C   ASP A 173      26.980  70.930  33.139  1.00 67.35   C
ATOM   1033  O   ASP A 173      26.129  71.687  32.646  1.00 67.17   O
ATOM   1034  N   ILE A 174      27.082  69.640  32.815  1.00 64.27   N
ATOM   1035  CA  ILE A 174      26.174  68.980  31.860  1.00 61.17   C
ATOM   1036  CB  ILE A 174      26.948  68.095  30.864  1.00 61.72   C
ATOM   1037  CG1 ILE A 174      27.296  68.897  29.608  1.00 61.33   C
ATOM   1038  CD1 ILE A 174      28.355  68.238  28.756  1.00 62.04   C
ATOM   1039  CG2 ILE A 174      26.147  66.817  30.515  1.00 60.92   C
ATOM   1040  C   ILE A 174      25.128  68.148  32.577  1.00 58.64   C
ATOM   1041  O   ILE A 174      25.447  67.199  33.307  1.00 58.26   O
ATOM   1042  N   THR A 175      23.875  68.521  32.370  1.00 55.50   N
ATOM   1043  CA  THR A 175      22.774  67.863  33.037  1.00 52.96   C
```

Figure 2-21

```
ATOM   1044  CB  THR A 175      22.325  68.690  34.251  1.00 52.53   C
ATOM   1045  OG1 THR A 175      21.797  69.949  33.810  1.00 50.00   O
ATOM   1046  CG2 THR A 175      23.513  69.077  35.093  1.00 52.68   C
ATOM   1047  C   THR A 175      21.583  67.677  32.118  1.00 51.81   C
ATOM   1048  O   THR A 175      21.516  68.233  31.024  1.00 51.04   O
ATOM   1049  N   GLU A 176      20.622  66.913  32.606  1.00 50.94   N
ATOM   1050  CA  GLU A 176      19.393  66.695  31.890  1.00 50.39   C
ATOM   1051  CB  GLU A 176      18.436  65.913  32.765  1.00 50.01   C
ATOM   1052  CG  GLU A 176      18.884  64.499  33.091  1.00 48.12   C
ATOM   1053  CD  GLU A 176      17.765  63.718  33.757  1.00 45.44   C
ATOM   1054  OE1 GLU A 176      18.027  62.738  34.475  1.00 41.04   O
ATOM   1055  OE2 GLU A 176      16.610  64.124  33.565  1.00 46.16   O
ATOM   1056  C   GLU A 176      18.763  68.029  31.548  1.00 51.01   C
ATOM   1057  O   GLU A 176      18.279  68.241  30.436  1.00 50.70   O
ATOM   1058  N   GLU A 177      18.770  68.927  32.524  1.00 51.59   N
ATOM   1059  CA  GLU A 177      18.169  70.240  32.376  1.00 52.81   C
ATOM   1060  CB  GLU A 177      18.287  71.011  33.696  1.00 53.47   C
ATOM   1061  CG  GLU A 177      17.768  70.254  34.925  1.00 57.74   C
ATOM   1062  CD  GLU A 177      18.803  69.372  35.638  1.00 61.44   C
ATOM   1063  OE1 GLU A 177      18.844  68.151  35.377  1.00 60.21   O
ATOM   1064  OE2 GLU A 177      19.553  69.893  36.514  1.00 66.62   O
ATOM   1065  C   GLU A 177      18.881  70.982  31.256  1.00 52.57   C
ATOM   1066  O   GLU A 177      18.267  71.714  30.466  1.00 52.14   O
ATOM   1067  N   LEU A 178      20.190  70.768  31.193  1.00 52.36   N
ATOM   1068  CA  LEU A 178      21.022  71.374  30.175  1.00 52.36   C
ATOM   1069  CB  LEU A 178      22.500  71.000  30.428  1.00 52.64   C
ATOM   1070  CG  LEU A 178      23.645  71.893  29.938  1.00 54.27   C
ATOM   1071  CD1 LEU A 178      24.801  71.059  29.375  1.00 54.27   C
ATOM   1072  CD2 LEU A 178      23.200  72.952  28.916  1.00 54.38   C
ATOM   1073  C   LEU A 178      20.571  70.845  28.803  1.00 51.39   C
ATOM   1074  O   LEU A 178      20.245  71.622  27.901  1.00 51.49   O
ATOM   1075  N   ILE A 179      20.535  69.526  28.653  1.00 50.04   N
ATOM   1076  CA  ILE A 179      20.219  68.943  27.353  1.00 48.69   C
ATOM   1077  CB  ILE A 179      20.333  67.404  27.419  1.00 48.44   C
ATOM   1078  CG1 ILE A 179      21.808  67.026  27.568  1.00 45.09   C
ATOM   1079  CD1 ILE A 179      22.062  65.590  27.769  1.00 41.60   C
ATOM   1080  CG2 ILE A 179      19.785  66.744  26.177  1.00 46.81   C
ATOM   1081  C   ILE A 179      18.882  69.470  26.833  1.00 49.66   C
ATOM   1082  O   ILE A 179      18.775  69.887  25.669  1.00 48.98   O
ATOM   1083  N   GLY A 180      17.896  69.526  27.735  1.00 50.36   N
ATOM   1084  CA  GLY A 180      16.568  70.037  27.440  1.00 50.34   C
ATOM   1085  C   GLY A 180      16.597  71.355  26.709  1.00 50.91   C
ATOM   1086  O   GLY A 180      15.848  71.586  25.761  1.00 50.98   O
ATOM   1087  N   ASN A 181      17.492  72.227  27.130  1.00 51.52   N
ATOM   1088  CA  ASN A 181      17.603  73.538  26.518  1.00 52.09   C
ATOM   1089  CB  ASN A 181      18.395  74.476  27.428  1.00 52.85   C
ATOM   1090  CG  ASN A 181      17.627  74.849  28.673  1.00 53.84   C
ATOM   1091  OD1 ASN A 181      16.467  75.278  28.594  1.00 56.95   O
ATOM   1092  ND2 ASN A 181      18.252  74.674  29.827  1.00 53.31   N
ATOM   1093  C   ASN A 181      18.200  73.548  25.118  1.00 51.94   C
ATOM   1094  O   ASN A 181      18.217  74.577  24.467  1.00 51.91   O
ATOM   1095  N   TYR A 182      18.676  72.404  24.646  1.00 52.03   N
ATOM   1096  CA  TYR A 182      19.300  72.364  23.337  1.00 51.87   C
ATOM   1097  CB  TYR A 182      20.725  71.835  23.436  1.00 52.56   C
ATOM   1098  CG  TYR A 182      21.741  72.831  23.967  1.00 53.98   C
ATOM   1099  CD1 TYR A 182      22.124  72.830  25.301  1.00 54.26   C
ATOM   1100  CE1 TYR A 182      23.081  73.725  25.777  1.00 54.85   C
```

Figure 2-22

```
ATOM   1101  CZ  TYR A 182      23.658  74.637  24.918  1.00 56.05  C
ATOM   1102  OH  TYR A 182      24.615  75.533  25.370  1.00 56.06  O
ATOM   1103  CE2 TYR A 182      23.295  74.647  23.589  1.00 56.50  C
ATOM   1104  CD2 TYR A 182      22.348  73.745  23.122  1.00 55.59  C
ATOM   1105  C   TYR A 182      18.472  71.550  22.354  1.00 51.11  C
ATOM   1106  O   TYR A 182      18.797  71.465  21.174  1.00 50.54  O
ATOM   1107  N   LEU A 183      17.401  70.950  22.855  1.00 50.32  N
ATOM   1108  CA  LEU A 183      16.461  70.218  22.009  1.00 49.76  C
ATOM   1109  CB  LEU A 183      15.601  69.301  22.873  1.00 49.27  C
ATOM   1110  CG  LEU A 183      16.372  68.349  23.790  1.00 49.01  C
ATOM   1111  CD1 LEU A 183      15.433  67.684  24.790  1.00 45.31  C
ATOM   1112  CD2 LEU A 183      17.139  67.294  22.983  1.00 47.19  C
ATOM   1113  C   LEU A 183      15.547  71.191  21.213  1.00 49.44  C
ATOM   1114  O   LEU A 183      15.263  72.306  21.651  1.00 48.56  O
ATOM   1115  N   PHE A 184      15.097  70.761  20.049  1.00 49.01  N
ATOM   1116  CA  PHE A 184      14.236  71.580  19.234  1.00 49.67  C
ATOM   1117  CB  PHE A 184      13.773  70.805  18.006  1.00 49.94  C
ATOM   1118  CG  PHE A 184      14.886  70.386  17.089  1.00 50.80  C
ATOM   1119  CD1 PHE A 184      14.769  69.240  16.324  1.00 50.31  C
ATOM   1120  CE1 PHE A 184      15.775  68.845  15.473  1.00 50.18  C
ATOM   1121  CZ  PHE A 184      16.908  69.589  15.373  1.00 51.45  C
ATOM   1122  CE2 PHE A 184      17.046  70.743  16.127  1.00 52.13  C
ATOM   1123  CD2 PHE A 184      16.038  71.135  16.984  1.00 51.18  C
ATOM   1124  C   PHE A 184      13.010  72.103  19.984  1.00 50.18  C
ATOM   1125  O   PHE A 184      12.378  73.052  19.530  1.00 50.01  O
ATOM   1126  N   THR A 185      12.646  71.486  21.104  1.00 50.63  N
ATOM   1127  CA  THR A 185      11.508  71.984  21.865  1.00 51.12  C
ATOM   1128  CB  THR A 185      10.824  70.867  22.651  1.00 50.76  C
ATOM   1129  OG1 THR A 185      11.801  69.931  23.102  1.00 50.36  O
ATOM   1130  CG2 THR A 185       9.925  70.055  21.759  1.00 51.08  C
ATOM   1131  C   THR A 185      11.881  73.069  22.861  1.00 52.21  C
ATOM   1132  O   THR A 185      11.062  73.435  23.690  1.00 52.62  O
ATOM   1133  N   GLN A 186      13.105  73.574  22.812  1.00 53.06  N
ATOM   1134  CA  GLN A 186      13.519  74.586  23.773  1.00 54.50  C
ATOM   1135  CB  GLN A 186      15.002  74.881  23.597  1.00 54.23  C
ATOM   1136  CG  GLN A 186      15.275  75.603  22.297  1.00 55.92  C
ATOM   1137  CD  GLN A 186      16.724  75.964  22.116  1.00 57.70  C
ATOM   1138  OE1 GLN A 186      17.225  75.969  20.998  1.00 59.85  O
ATOM   1139  NE2 GLN A 186      17.399  76.289  23.208  1.00 59.58  N
ATOM   1140  C   GLN A 186      12.717  75.909  23.677  1.00 55.24  C
ATOM   1141  O   GLN A 186      12.458  76.571  24.686  1.00 54.42  O
ATOM   1142  N   HIS A 187      12.329  76.279  22.466  1.00 56.38  N
ATOM   1143  CA  HIS A 187      11.642  77.547  22.244  1.00 58.08  C
ATOM   1144  CB  HIS A 187      11.748  77.976  20.777  1.00 58.93  C
ATOM   1145  CG  HIS A 187      13.153  78.057  20.262  1.00 61.48  C
ATOM   1146  ND1 HIS A 187      13.550  77.452  19.088  1.00 63.40  N
ATOM   1147  CE1 HIS A 187      14.829  77.709  18.871  1.00 65.48  C
ATOM   1148  NE2 HIS A 187      15.276  78.465  19.860  1.00 65.59  N
ATOM   1149  CD2 HIS A 187      14.247  78.697  20.743  1.00 65.08  C
ATOM   1150  C   HIS A 187      10.178  77.516  22.674  1.00 58.21  C
ATOM   1151  O   HIS A 187       9.369  78.355  22.242  1.00 58.20  O
ATOM   1152  N   LEU A 188       9.830  76.527  23.495  1.00 57.94  N
ATOM   1153  CA  LEU A 188       8.510  76.475  24.087  1.00 57.63  C
ATOM   1154  CB  LEU A 188       7.982  75.042  24.162  1.00 57.61  C
ATOM   1155  CG  LEU A 188       7.545  74.397  22.848  1.00 58.58  C
ATOM   1156  CD1 LEU A 188       7.044  72.997  23.091  1.00 58.90  C
ATOM   1157  CD2 LEU A 188       6.468  75.228  22.151  1.00 57.38  C
```

Figure 2-23

```
ATOM   1158  C   LEU A 188       8.767  76.989  25.472  1.00 57.24   C
ATOM   1159  O   LEU A 188       9.872  76.835  25.978  1.00 57.67   O
ATOM   1160  N   PRO A 189       7.787  77.638  26.079  1.00 57.01   N
ATOM   1161  CA  PRO A 189       7.923  78.082  27.472  1.00 56.58   C
ATOM   1162  CB  PRO A 189       6.480  78.309  27.887  1.00 56.83   C
ATOM   1163  CG  PRO A 189       5.841  78.807  26.591  1.00 56.88   C
ATOM   1164  CD  PRO A 189       6.496  78.030  25.489  1.00 56.86   C
ATOM   1165  C   PRO A 189       8.588  76.981  28.297  1.00 56.07   C
ATOM   1166  O   PRO A 189       8.499  75.815  27.937  1.00 55.62   O
ATOM   1167  N   LYS A 190       9.237  77.353  29.392  1.00 55.65   N
ATOM   1168  CA  LYS A 190      10.050  76.415  30.151  1.00 54.78   C
ATOM   1169  CB  LYS A 190      11.035  77.159  31.054  1.00 55.37   C
ATOM   1170  CG  LYS A 190      12.466  77.097  30.552  1.00 56.48   C
ATOM   1171  CD  LYS A 190      13.400  76.547  31.616  1.00 57.01   C
ATOM   1172  CE  LYS A 190      14.855  76.665  31.180  1.00 58.90   C
ATOM   1173  NZ  LYS A 190      15.814  76.042  32.157  1.00 57.36   N
ATOM   1174  C   LYS A 190       9.389  75.292  30.950  1.00 53.90   C
ATOM   1175  O   LYS A 190      10.084  74.598  31.682  1.00 54.58   O
ATOM   1176  N   ASP A 191       8.089  75.083  30.828  1.00 52.07   N
ATOM   1177  CA  ASP A 191       7.470  73.977  31.563  1.00 50.51   C
ATOM   1178  CB  ASP A 191       6.936  74.448  32.900  1.00 51.96   C
ATOM   1179  CG  ASP A 191       5.969  75.604  32.753  1.00 54.24   C
ATOM   1180  OD1 ASP A 191       5.740  76.063  31.607  1.00 55.99   O
ATOM   1181  OD2 ASP A 191       5.420  76.146  33.731  1.00 58.63   O
ATOM   1182  C   ASP A 191       6.330  73.359  30.767  1.00 48.38   C
ATOM   1183  O   ASP A 191       5.453  72.694  31.313  1.00 46.95   O
ATOM   1184  N   LEU A 192       6.361  73.614  29.471  1.00 46.10   N
ATOM   1185  CA  LEU A 192       5.420  73.042  28.546  1.00 45.10   C
ATOM   1186  CB  LEU A 192       4.590  74.154  27.922  1.00 44.55   C
ATOM   1187  CG  LEU A 192       3.807  74.847  29.025  1.00 45.12   C
ATOM   1188  CD1 LEU A 192       3.248  76.161  28.536  1.00 45.24   C
ATOM   1189  CD2 LEU A 192       2.711  73.929  29.588  1.00 43.74   C
ATOM   1190  C   LEU A 192       6.211  72.289  27.484  1.00 43.58   C
ATOM   1191  O   LEU A 192       5.708  71.974  26.431  1.00 43.33   O
ATOM   1192  N   ARG A 193       7.472  72.026  27.778  1.00 42.36   N
ATOM   1193  CA  ARG A 193       8.351  71.330  26.839  1.00 41.33   C
ATOM   1194  CB  ARG A 193       9.813  71.609  27.186  1.00 41.49   C
ATOM   1195  CG  ARG A 193      10.242  73.021  26.832  1.00 40.87   C
ATOM   1196  CD  ARG A 193      11.539  73.452  27.500  1.00 45.17   C
ATOM   1197  NE  ARG A 193      12.108  74.668  26.929  1.00 46.19   N
ATOM   1198  CZ  ARG A 193      13.302  75.139  27.252  1.00 47.06   C
ATOM   1199  NH1 ARG A 193      14.039  74.501  28.143  1.00 47.88   N
ATOM   1200  NH2 ARG A 193      13.767  76.243  26.686  1.00 47.28   N
ATOM   1201  C   ARG A 193       8.066  69.817  26.683  1.00 39.92   C
ATOM   1202  O   ARG A 193       8.121  69.289  25.565  1.00 40.65   O
ATOM   1203  N   ASP A 194       7.674  69.150  27.759  1.00 37.08   N
ATOM   1204  CA  ASP A 194       7.382  67.730  27.684  1.00 35.98   C
ATOM   1205  CB  ASP A 194       7.823  66.999  28.963  1.00 35.41   C
ATOM   1206  CG  ASP A 194       9.312  67.114  29.247  1.00 34.90   C
ATOM   1207  OD1 ASP A 194      10.092  67.676  28.442  1.00 28.44   O
ATOM   1208  OD2 ASP A 194       9.766  66.642  30.307  1.00 38.51   O
ATOM   1209  C   ASP A 194       5.912  67.393  27.494  1.00 35.12   C
ATOM   1210  O   ASP A 194       5.075  67.727  28.314  1.00 34.80   O
ATOM   1211  N   PRO A 195       5.621  66.631  26.459  1.00 34.24   N
ATOM   1212  CA  PRO A 195       4.246  66.184  26.201  1.00 33.46   C
ATOM   1213  CB  PRO A 195       4.420  65.111  25.124  1.00 33.67   C
ATOM   1214  CG  PRO A 195       5.787  65.300  24.560  1.00 33.79   C
```

Figure 2-24

```
ATOM   1215  CD  PRO A 195       6.603  66.134  25.480  1.00 33.40  C
ATOM   1216  C   PRO A 195       3.613  65.562  27.452  1.00 33.15  C
ATOM   1217  O   PRO A 195       4.215  64.690  28.075  1.00 33.38  O
ATOM   1218  N   ASP A 196       2.421  65.998  27.833  1.00 32.25  N
ATOM   1219  CA  ASP A 196       1.757  65.387  28.957  1.00 32.34  C
ATOM   1220  CB  ASP A 196       0.670  66.328  29.521  1.00 33.18  C
ATOM   1221  CG  ASP A 196       1.242  67.474  30.309  1.00 34.28  C
ATOM   1222  OD1 ASP A 196       1.488  67.239  31.519  1.00 35.06  O
ATOM   1223  OD2 ASP A 196       1.524  68.612  29.815  1.00 34.06  O
ATOM   1224  C   ASP A 196       1.108  64.127  28.414  1.00 31.58  C
ATOM   1225  O   ASP A 196       0.925  63.145  29.119  1.00 31.92  O
ATOM   1226  N   LEU A 197       0.792  64.144  27.132  1.00 31.02  N
ATOM   1227  CA  LEU A 197       0.047  63.046  26.522  1.00 31.66  C
ATOM   1228  CB  LEU A 197      -1.456  63.384  26.480  1.00 32.44  C
ATOM   1229  CG  LEU A 197      -2.344  62.359  25.787  1.00 35.16  C
ATOM   1230  CD1 LEU A 197      -2.473  61.157  26.716  1.00 34.97  C
ATOM   1231  CD2 LEU A 197      -3.757  62.925  25.435  1.00 39.31  C
ATOM   1232  C   LEU A 197       0.455  62.874  25.101  1.00 30.85  C
ATOM   1233  O   LEU A 197       0.557  63.849  24.359  1.00 30.58  O
ATOM   1234  N   ILE A 198       0.668  61.627  24.707  1.00 30.29  N
ATOM   1235  CA  ILE A 198       0.960  61.325  23.325  1.00 29.84  C
ATOM   1236  CB  ILE A 198       2.315  60.618  23.177  1.00 30.09  C
ATOM   1237  CG1 ILE A 198       3.443  61.529  23.658  1.00 30.79  C
ATOM   1238  CD1 ILE A 198       4.824  60.939  23.482  1.00 25.63  C
ATOM   1239  CG2 ILE A 198       2.555  60.259  21.710  1.00 28.18  C
ATOM   1240  C   ILE A 198      -0.170  60.477  22.753  1.00 30.42  C
ATOM   1241  O   ILE A 198      -0.683  59.568  23.416  1.00 30.16  O
ATOM   1242  N   ILE A 199      -0.573  60.805  21.532  1.00 30.84  N
ATOM   1243  CA  ILE A 199      -1.623  60.076  20.837  1.00 33.38  C
ATOM   1244  CB  ILE A 199      -2.804  61.003  20.536  1.00 33.91  C
ATOM   1245  CG1 ILE A 199      -3.401  61.420  21.891  1.00 37.15  C
ATOM   1246  CD1 ILE A 199      -4.687  62.109  21.786  1.00 36.23  C
ATOM   1247  CG2 ILE A 199      -3.839  60.315  19.650  1.00 34.65  C
ATOM   1248  C   ILE A 199      -1.096  59.560  19.542  1.00 32.57  C
ATOM   1249  O   ILE A 199      -0.483  60.281  18.782  1.00 32.55  O
ATOM   1250  N   ARG A 200      -1.341  58.302  19.307  1.00 33.82  N
ATOM   1251  CA  ARG A 200      -1.000  57.682  18.050  1.00 35.83  C
ATOM   1252  CB  ARG A 200      -0.083  56.489  18.336  1.00 36.14  C
ATOM   1253  CG  ARG A 200       0.395  55.735  17.122  1.00 39.67  C
ATOM   1254  CD  ARG A 200       1.579  56.376  16.468  1.00 45.21  C
ATOM   1255  NE  ARG A 200       1.984  55.657  15.270  1.00 49.62  N
ATOM   1256  CZ  ARG A 200       3.183  55.743  14.720  1.00 50.81  C
ATOM   1257  NH1 ARG A 200       3.464  55.046  13.634  1.00 52.91  N
ATOM   1258  NH2 ARG A 200       4.101  56.528  15.255  1.00 53.65  N
ATOM   1259  C   ARG A 200      -2.332  57.183  17.453  1.00 36.24  C
ATOM   1260  O   ARG A 200      -3.117  56.498  18.101  1.00 35.76  O
ATOM   1261  N   THR A 201      -2.619  57.554  16.231  1.00 38.12  N
ATOM   1262  CA  THR A 201      -3.854  57.076  15.649  1.00 39.65  C
ATOM   1263  CB  THR A 201      -4.507  58.142  14.841  1.00 39.47  C
ATOM   1264  OG1 THR A 201      -3.523  58.743  14.009  1.00 37.72  O
ATOM   1265  CG2 THR A 201      -4.977  59.284  15.717  1.00 41.35  C
ATOM   1266  C   THR A 201      -3.557  55.991  14.674  1.00 40.87  C
ATOM   1267  O   THR A 201      -2.487  55.998  14.046  1.00 40.84  O
ATOM   1268  N   SER A 202      -4.517  55.069  14.570  1.00 41.14  N
ATOM   1269  CA  SER A 202      -4.568  54.108  13.479  1.00 41.79  C
ATOM   1270  CB  SER A 202      -3.850  54.610  12.237  1.00 41.68  C
ATOM   1271  OG  SER A 202      -3.650  53.495  11.397  1.00 42.09  O
```

Figure 2-25

```
ATOM   1272  C   SER A 202      -4.116  52.707  13.699  1.00 42.06  C
ATOM   1273  O   SER A 202      -3.751  52.050  12.738  1.00 42.59  O
ATOM   1274  N   GLY A 203      -4.180  52.215  14.924  1.00 42.31  N
ATOM   1275  CA  GLY A 203      -3.752  50.859  15.176  1.00 42.79  C
ATOM   1276  C   GLY A 203      -2.332  50.836  15.660  1.00 42.98  C
ATOM   1277  O   GLY A 203      -2.080  50.405  16.772  1.00 44.31  O
ATOM   1278  N   GLU A 204      -1.413  51.342  14.855  1.00 43.13  N
ATOM   1279  CA  GLU A 204       0.010  51.346  15.195  1.00 43.55  C
ATOM   1280  CB  GLU A 204       0.712  52.450  14.416  1.00 44.58  C
ATOM   1281  CG  GLU A 204       1.274  52.010  13.061  1.00 48.50  C
ATOM   1282  CD  GLU A 204       0.482  50.893  12.423  1.00 55.54  C
ATOM   1283  OE1 GLU A 204       1.099  49.858  12.061  1.00 58.96  O
ATOM   1284  OE2 GLU A 204      -0.759  51.043  12.273  1.00 58.38  O
ATOM   1285  C   GLU A 204       0.343  51.466  16.680  1.00 41.90  C
ATOM   1286  O   GLU A 204       0.151  52.491  17.296  1.00 42.34  O
ATOM   1287  N   LEU A 205       0.826  50.405  17.274  1.00 41.02  N
ATOM   1288  CA  LEU A 205       1.258  50.512  18.657  1.00 40.90  C
ATOM   1289  CB  LEU A 205       0.860  49.252  19.401  1.00 40.82  C
ATOM   1290  CG  LEU A 205      -0.484  49.175  20.110  1.00 43.37  C
ATOM   1291  CD1 LEU A 205      -0.295  49.460  21.577  1.00 44.91  C
ATOM   1292  CD2 LEU A 205      -1.545  50.126  19.505  1.00 44.42  C
ATOM   1293  C   LEU A 205       2.786  50.742  18.725  1.00 40.19  C
ATOM   1294  O   LEU A 205       3.538  49.819  18.992  1.00 39.68  O
ATOM   1295  N   ARG A 206       3.234  51.962  18.449  1.00 40.50  N
ATOM   1296  CA  ARG A 206       4.662  52.278  18.498  1.00 41.64  C
ATOM   1297  CB  ARG A 206       5.412  51.526  17.379  1.00 41.80  C
ATOM   1298  CG  ARG A 206       5.158  52.046  15.975  1.00 42.82  C
ATOM   1299  CD  ARG A 206       5.863  51.270  14.886  1.00 46.98  C
ATOM   1300  NE  ARG A 206       5.225  51.445  13.586  1.00 51.26  N
ATOM   1301  CZ  ARG A 206       4.442  50.531  13.006  1.00 51.79  C
ATOM   1302  NH1 ARG A 206       4.197  49.378  13.625  1.00 53.37  N
ATOM   1303  NH2 ARG A 206       3.905  50.769  11.815  1.00 48.44  N
ATOM   1304  C   ARG A 206       4.912  53.788  18.425  1.00 41.76  C
ATOM   1305  O   ARG A 206       4.104  54.527  17.854  1.00 42.28  O
ATOM   1306  N   LEU A 207       6.057  54.240  18.941  1.00 41.45  N
ATOM   1307  CA  LEU A 207       6.317  55.690  19.095  1.00 41.35  C
ATOM   1308  CB  LEU A 207       7.051  55.957  20.415  1.00 41.96  C
ATOM   1309  CG  LEU A 207       7.303  57.377  20.929  1.00 45.51  C
ATOM   1310  CD1 LEU A 207       6.000  58.264  21.132  1.00 44.12  C
ATOM   1311  CD2 LEU A 207       8.157  57.294  22.229  1.00 46.61  C
ATOM   1312  C   LEU A 207       7.061  56.361  17.942  1.00 39.57  C
ATOM   1313  O   LEU A 207       7.145  57.592  17.887  1.00 41.13  O
ATOM   1314  N   SER A 208       7.567  55.546  17.025  1.00 35.90  N
ATOM   1315  CA  SER A 208       8.278  55.991  15.833  1.00 33.00  C
ATOM   1316  CB  SER A 208       7.306  56.267  14.680  1.00 33.40  C
ATOM   1317  OG  SER A 208       6.349  55.229  14.617  1.00 32.40  O
ATOM   1318  C   SER A 208       9.287  57.117  15.969  1.00 30.54  C
ATOM   1319  O   SER A 208       9.359  58.022  15.115  1.00 29.58  O
ATOM   1320  N   ASN A 209      10.087  57.051  17.018  1.00 28.26  N
ATOM   1321  CA  ASN A 209      11.195  58.006  17.145  1.00 26.76  C
ATOM   1322  CB  ASN A 209      12.048  57.952  15.873  1.00 25.07  C
ATOM   1323  CG  ASN A 209      13.385  58.631  16.018  1.00 23.14  C
ATOM   1324  OD1 ASN A 209      13.837  58.894  17.111  1.00 20.08  O
ATOM   1325  ND2 ASN A 209      14.053  58.879  14.880  1.00 16.12  N
ATOM   1326  C   ASN A 209      10.561  59.390  17.326  1.00 26.01  C
ATOM   1327  O   ASN A 209      11.170  60.421  17.011  1.00 25.07  O
ATOM   1328  N   PHE A 210       9.307  59.392  17.764  1.00 24.07  N
```

Figure 2-26

```
ATOM   1329  CA  PHE A 210       8.661  60.652  18.133  1.00 24.91  C
ATOM   1330  CB  PHE A 210       7.176  60.612  17.811  1.00 25.65  C
ATOM   1331  CG  PHE A 210       6.465  61.903  18.090  1.00 24.28  C
ATOM   1332  CD1 PHE A 210       5.510  61.978  19.058  1.00 28.38  C
ATOM   1333  CE1 PHE A 210       4.841  63.196  19.295  1.00 29.51  C
ATOM   1334  CZ  PHE A 210       5.156  64.317  18.529  1.00 29.49  C
ATOM   1335  CE2 PHE A 210       6.139  64.235  17.590  1.00 27.27  C
ATOM   1336  CD2 PHE A 210       6.770  63.037  17.372  1.00 25.31  C
ATOM   1337  C   PHE A 210       8.861  61.060  19.643  1.00 23.78  C
ATOM   1338  O   PHE A 210       8.388  60.386  20.573  1.00 24.05  O
ATOM   1339  N   LEU A 211       9.560  62.180  19.844  1.00 23.87  N
ATOM   1340  CA  LEU A 211       9.863  62.794  21.182  1.00 24.02  C
ATOM   1341  CB  LEU A 211       8.655  63.624  21.691  1.00 24.63  C
ATOM   1342  CG  LEU A 211       8.102  64.787  20.799  1.00 24.70  C
ATOM   1343  CD1 LEU A 211       6.753  65.347  21.321  1.00 24.39  C
ATOM   1344  CD2 LEU A 211       9.105  65.923  20.680  1.00 17.07  C
ATOM   1345  C   LEU A 211      10.417  61.899  22.320  1.00 24.31  C
ATOM   1346  O   LEU A 211      10.044  62.057  23.498  1.00 24.64  O
ATOM   1347  N   PRO A 212      11.361  61.011  21.991  1.00 23.36  N
ATOM   1348  CA  PRO A 212      11.924  60.048  22.950  1.00 22.52  C
ATOM   1349  CB  PRO A 212      13.141  59.474  22.190  1.00 23.12  C
ATOM   1350  CG  PRO A 212      13.378  60.473  21.138  1.00 24.91  C
ATOM   1351  CD  PRO A 212      11.990  60.866  20.657  1.00 23.26  C
ATOM   1352  C   PRO A 212      12.351  60.706  24.254  1.00 22.47  C
ATOM   1353  O   PRO A 212      12.033  60.195  25.327  1.00 22.14  O
ATOM   1354  N   TRP A 213      13.059  61.824  24.177  1.00 21.93  N
ATOM   1355  CA  TRP A 213      13.452  62.530  25.411  1.00 23.28  C
ATOM   1356  CB  TRP A 213      14.605  63.499  25.148  1.00 22.63  C
ATOM   1357  CG  TRP A 213      15.036  64.324  26.360  1.00 24.91  C
ATOM   1358  CD1 TRP A 213      14.334  65.335  26.956  1.00 25.62  C
ATOM   1359  NE1 TRP A 213      15.045  65.847  28.013  1.00 25.29  N
ATOM   1360  CE2 TRP A 213      16.242  65.196  28.105  1.00 24.19  C
ATOM   1361  CD2 TRP A 213      16.286  64.250  27.064  1.00 25.75  C
ATOM   1362  CE3 TRP A 213      17.416  63.433  26.958  1.00 27.86  C
ATOM   1363  CZ3 TRP A 213      18.468  63.626  27.850  1.00 28.30  C
ATOM   1364  CH2 TRP A 213      18.394  64.593  28.849  1.00 24.17  C
ATOM   1365  CZ2 TRP A 213      17.293  65.389  28.985  1.00 23.79  C
ATOM   1366  C   TRP A 213      12.259  63.260  26.126  1.00 23.19  C
ATOM   1367  O   TRP A 213      11.871  62.892  27.241  1.00 23.43  O
ATOM   1368  N   GLN A 214      11.685  64.245  25.458  1.00 21.33  N
ATOM   1369  CA  GLN A 214      10.569  64.977  26.028  1.00 22.86  C
ATOM   1370  CB  GLN A 214      10.076  66.082  25.057  1.00 22.37  C
ATOM   1371  CG  GLN A 214      11.207  66.969  24.512  1.00 26.97  C
ATOM   1372  CD  GLN A 214      11.821  66.507  23.177  1.00 29.96  C
ATOM   1373  OE1 GLN A 214      12.155  67.342  22.325  1.00 32.20  O
ATOM   1374  NE2 GLN A 214      11.951  65.186  22.985  1.00 29.88  N
ATOM   1375  C   GLN A 214       9.418  64.067  26.568  1.00 21.76  C
ATOM   1376  O   GLN A 214       8.922  64.321  27.657  1.00 20.99  O
ATOM   1377  N   GLY A 215       9.148  62.949  25.887  1.00 21.52  N
ATOM   1378  CA  GLY A 215       8.078  62.016  26.215  1.00 20.18  C
ATOM   1379  C   GLY A 215       8.360  60.786  27.022  1.00 21.07  C
ATOM   1380  O   GLY A 215       7.516  59.901  27.097  1.00 20.90  O
ATOM   1381  N   ALA A 216       9.518  60.766  27.671  1.00 22.72  N
ATOM   1382  CA  ALA A 216       9.941  59.678  28.546  1.00 23.81  C
ATOM   1383  CB  ALA A 216      11.235  60.087  29.242  1.00 23.49  C
ATOM   1384  C   ALA A 216       8.906  59.309  29.597  1.00 25.18  C
ATOM   1385  O   ALA A 216       8.872  58.167  30.077  1.00 25.53  O
```

Figure 2-27

```
ATOM   1386  N   TYR A 217       8.098  60.290  30.002  1.00 26.09  N
ATOM   1387  CA  TYR A 217       7.133  60.110  31.087  1.00 27.12  C
ATOM   1388  CB  TYR A 217       7.407  61.138  32.176  1.00 27.37  C
ATOM   1389  CG  TYR A 217       8.647  60.841  33.000  1.00 29.42  C
ATOM   1390  CD1 TYR A 217       8.696  59.759  33.864  1.00 32.74  C
ATOM   1391  CE1 TYR A 217       9.846  59.472  34.558  1.00 34.23  C
ATOM   1392  CZ  TYR A 217      10.958  60.273  34.386  1.00 33.31  C
ATOM   1393  OH  TYR A 217      12.119  60.031  35.058  1.00 32.64  O
ATOM   1394  CE2 TYR A 217      10.932  61.335  33.527  1.00 32.62  C
ATOM   1395  CD2 TYR A 217       9.792  61.602  32.827  1.00 31.67  C
ATOM   1396  C   TYR A 217       5.677  60.268  30.671  1.00 28.34  C
ATOM   1397  O   TYR A 217       4.782  60.153  31.507  1.00 28.04  O
ATOM   1398  N   SER A 218       5.423  60.535  29.403  1.00 29.38  N
ATOM   1399  CA  SER A 218       4.059  60.839  29.003  1.00 30.63  C
ATOM   1400  CB  SER A 218       4.048  61.464  27.601  1.00 30.96  C
ATOM   1401  OG  SER A 218       5.190  62.281  27.339  1.00 29.10  O
ATOM   1402  C   SER A 218       3.074  59.661  29.046  1.00 32.21  C
ATOM   1403  O   SER A 218       3.447  58.500  28.930  1.00 31.74  O
ATOM   1404  N   GLU A 219       1.803  59.988  29.237  1.00 33.91  N
ATOM   1405  CA  GLU A 219       0.734  59.017  29.100  1.00 35.34  C
ATOM   1406  CB  GLU A 219      -0.584  59.635  29.567  1.00 35.85  C
ATOM   1407  CG  GLU A 219      -0.666  59.843  31.049  1.00 36.42  C
ATOM   1408  CD  GLU A 219      -0.539  58.535  31.749  1.00 38.14  C
ATOM   1409  OE1 GLU A 219      -1.005  57.531  31.158  1.00 41.73  O
ATOM   1410  OE2 GLU A 219       0.028  58.506  32.860  1.00 38.23  O
ATOM   1411  C   GLU A 219       0.629  58.766  27.603  1.00 35.45  C
ATOM   1412  O   GLU A 219       0.712  59.683  26.823  1.00 36.00  O
ATOM   1413  N   LEU A 220       0.454  57.530  27.202  1.00 36.38  N
ATOM   1414  CA  LEU A 220       0.301  57.227  25.791  1.00 38.07  C
ATOM   1415  CB  LEU A 220       1.180  56.022  25.417  1.00 37.32  C
ATOM   1416  CG  LEU A 220       2.662  56.178  25.771  1.00 37.89  C
ATOM   1417  CD1 LEU A 220       3.427  54.875  25.530  1.00 36.65  C
ATOM   1418  CD2 LEU A 220       3.313  57.360  25.009  1.00 34.36  C
ATOM   1419  C   LEU A 220      -1.174  56.919  25.510  1.00 38.89  C
ATOM   1420  O   LEU A 220      -1.836  56.311  26.325  1.00 38.06  O
ATOM   1421  N   TYR A 221      -1.689  57.374  24.375  1.00 40.70  N
ATOM   1422  CA  TYR A 221      -3.068  57.072  24.008  1.00 42.42  C
ATOM   1423  CB  TYR A 221      -3.981  58.325  24.057  1.00 43.49  C
ATOM   1424  CG  TYR A 221      -5.439  57.986  23.756  1.00 45.74  C
ATOM   1425  CD1 TYR A 221      -6.127  57.102  24.565  1.00 48.46  C
ATOM   1426  CE1 TYR A 221      -7.420  56.743  24.312  1.00 50.16  C
ATOM   1427  CZ  TYR A 221      -8.073  57.246  23.213  1.00 51.20  C
ATOM   1428  OH  TYR A 221      -9.376  56.841  22.994  1.00 51.07  O
ATOM   1429  CE2 TYR A 221      -7.425  58.127  22.364  1.00 50.66  C
ATOM   1430  CD2 TYR A 221      -6.088  58.483  22.639  1.00 48.40  C
ATOM   1431  C   TYR A 221      -3.069  56.450  22.626  1.00 42.72  C
ATOM   1432  O   TYR A 221      -2.634  57.064  21.673  1.00 43.17  O
ATOM   1433  N   PHE A 222      -3.494  55.201  22.516  1.00 43.87  N
ATOM   1434  CA  PHE A 222      -3.616  54.590  21.199  1.00 45.31  C
ATOM   1435  CB  PHE A 222      -2.871  53.258  21.149  1.00 44.65  C
ATOM   1436  CG  PHE A 222      -1.416  53.379  21.494  1.00 43.60  C
ATOM   1437  CD1 PHE A 222      -0.489  53.720  20.519  1.00 42.54  C
ATOM   1438  CE1 PHE A 222       0.848  53.841  20.824  1.00 38.94  C
ATOM   1439  CZ  PHE A 222       1.266  53.635  22.120  1.00 39.59  C
ATOM   1440  CE2 PHE A 222       0.349  53.290  23.102  1.00 40.27  C
ATOM   1441  CD2 PHE A 222      -0.977  53.181  22.793  1.00 40.79  C
ATOM   1442  C   PHE A 222      -5.084  54.397  20.792  1.00 46.48  C
```

Figure 2-28

```
ATOM   1443  O   PHE A 222      -5.918  53.947  21.589  1.00 47.68  O
ATOM   1444  N   THR A 223      -5.407  54.755  19.561  1.00 47.30  N
ATOM   1445  CA  THR A 223      -6.740  54.491  19.062  1.00 48.20  C
ATOM   1446  CB  THR A 223      -7.621  55.745  19.054  1.00 48.27  C
ATOM   1447  OG1 THR A 223      -8.991  55.319  19.069  1.00 49.24  O
ATOM   1448  CG2 THR A 223      -7.494  56.452  17.731  1.00 46.85  C
ATOM   1449  C   THR A 223      -6.704  53.917  17.665  1.00 48.78  C
ATOM   1450  O   THR A 223      -5.928  54.360  16.810  1.00 48.06  O
ATOM   1451  N   ASP A 224      -7.595  52.958  17.433  1.00 49.98  N
ATOM   1452  CA  ASP A 224      -7.698  52.323  16.134  1.00 51.09  C
ATOM   1453  CB  ASP A 224      -8.685  51.162  16.186  1.00 51.98  C
ATOM   1454  CG  ASP A 224      -8.004  49.808  16.496  1.00 54.61  C
ATOM   1455  OD1 ASP A 224      -6.755  49.680  16.333  1.00 54.41  O
ATOM   1456  OD2 ASP A 224      -8.663  48.812  16.899  1.00 56.05  O
ATOM   1457  C   ASP A 224      -8.097  53.314  15.048  1.00 51.36  C
ATOM   1458  O   ASP A 224      -7.691  53.155  13.904  1.00 50.85  O
ATOM   1459  N   THR A 225      -8.846  54.360  15.409  1.00 52.00  N
ATOM   1460  CA  THR A 225      -9.364  55.282  14.400  1.00 52.31  C
ATOM   1461  CB  THR A 225     -10.535  56.255  14.927  1.00 52.49  C
ATOM   1462  OG1 THR A 225     -10.136  57.639  14.928  1.00 50.23  O
ATOM   1463  CG2 THR A 225     -10.970  55.923  16.355  1.00 51.08  C
ATOM   1464  C   THR A 225      -8.288  56.002  13.622  1.00 53.04  C
ATOM   1465  O   THR A 225      -7.270  56.404  14.158  1.00 53.41  O
ATOM   1466  N   LEU A 226      -8.554  56.141  12.334  1.00 53.82  N
ATOM   1467  CA  LEU A 226      -7.693  56.804  11.390  1.00 54.63  C
ATOM   1468  CB  LEU A 226      -8.271  56.642   9.996  1.00 55.24  C
ATOM   1469  CG  LEU A 226      -7.983  55.350   9.238  1.00 56.21  C
ATOM   1470  CD1 LEU A 226      -6.924  55.657   8.223  1.00 55.92  C
ATOM   1471  CD2 LEU A 226      -7.545  54.203  10.159  1.00 58.88  C
ATOM   1472  C   LEU A 226      -7.684  58.251  11.718  1.00 55.31  C
ATOM   1473  O   LEU A 226      -8.649  58.745  12.312  1.00 56.41  O
ATOM   1474  N   TRP A 227      -6.646  58.951  11.257  1.00 55.51  N
ATOM   1475  CA  TRP A 227      -6.406  60.362  11.610  1.00 55.71  C
ATOM   1476  CB  TRP A 227      -5.086  60.849  11.021  1.00 55.04  C
ATOM   1477  CG  TRP A 227      -4.893  62.316  11.189  1.00 54.22  C
ATOM   1478  CD1 TRP A 227      -4.592  63.216  10.229  1.00 54.54  C
ATOM   1479  NE1 TRP A 227      -4.474  64.476  10.770  1.00 54.50  N
ATOM   1480  CE2 TRP A 227      -4.737  64.405  12.111  1.00 53.91  C
ATOM   1481  CD2 TRP A 227      -5.004  63.060  12.410  1.00 53.55  C
ATOM   1482  CE3 TRP A 227      -5.279  62.720  13.729  1.00 52.20  C
ATOM   1483  CZ3 TRP A 227      -5.275  63.713  14.688  1.00 53.39  C
ATOM   1484  CH2 TRP A 227      -5.009  65.029  14.356  1.00 53.94  C
ATOM   1485  CZ2 TRP A 227      -4.748  65.400  13.075  1.00 54.38  C
ATOM   1486  C   TRP A 227      -7.475  61.320  11.167  1.00 56.84  C
ATOM   1487  O   TRP A 227      -7.937  62.203  11.872  1.00 56.66  O
ATOM   1488  N   PRO A 228      -7.813  61.121   9.920  1.00 58.19  N
ATOM   1489  CA  PRO A 228      -8.774  61.933   9.179  1.00 58.64  C
ATOM   1490  CB  PRO A 228      -8.836  61.235   7.835  1.00 58.84  C
ATOM   1491  CG  PRO A 228      -7.557  60.481   7.771  1.00 59.48  C
ATOM   1492  CD  PRO A 228      -7.282  60.001   9.139  1.00 58.57  C
ATOM   1493  C   PRO A 228     -10.080  61.783   9.904  1.00 58.50  C
ATOM   1494  O   PRO A 228     -10.803  62.729  10.084  1.00 58.49  O
ATOM   1495  N   ASP A 229     -10.375  60.578  10.351  1.00 59.21  N
ATOM   1496  CA  ASP A 229     -11.582  60.388  11.123  1.00 59.08  C
ATOM   1497  CB  ASP A 229     -11.902  58.901  11.221  1.00 59.82  C
ATOM   1498  CG  ASP A 229     -12.954  58.479  10.233  1.00 60.49  C
ATOM   1499  OD1 ASP A 229     -13.666  59.383   9.760  1.00 61.52  O
```

Figure 2-29

```
ATOM   1500  OD2 ASP A 229     -13.145  57.292   9.882  1.00 60.81  O
ATOM   1501  C   ASP A 229     -11.493  60.986  12.540  1.00 59.08  C
ATOM   1502  O   ASP A 229     -12.452  60.903  13.313  1.00 58.85  O
ATOM   1503  N   PHE A 230     -10.358  61.594  12.888  1.00 58.60  N
ATOM   1504  CA  PHE A 230     -10.141  62.091  14.267  1.00 58.06  C
ATOM   1505  CB  PHE A 230      -8.650  62.049  14.623  1.00 57.69  C
ATOM   1506  CG  PHE A 230      -8.370  62.008  16.077  1.00 55.60  C
ATOM   1507  CD1 PHE A 230      -8.307  63.170  16.809  1.00 54.68  C
ATOM   1508  CE1 PHE A 230      -8.036  63.141  18.147  1.00 54.02  C
ATOM   1509  CZ  PHE A 230      -7.813  61.941  18.781  1.00 54.20  C
ATOM   1510  CE2 PHE A 230      -7.865  60.769  18.066  1.00 54.45  C
ATOM   1511  CD2 PHE A 230      -8.138  60.806  16.712  1.00 54.11  C
ATOM   1512  C   PHE A 230     -10.727  63.477  14.579  1.00 58.35  C
ATOM   1513  O   PHE A 230     -10.155  64.510  14.211  1.00 57.85  O
ATOM   1514  N   ASP A 231     -11.847  63.470  15.309  1.00 58.44  N
ATOM   1515  CA  ASP A 231     -12.629  64.668  15.639  1.00 58.50  C
ATOM   1516  CB  ASP A 231     -14.075  64.518  15.124  1.00 57.74  C
ATOM   1517  CG  ASP A 231     -14.791  63.253  15.667  1.00 56.78  C
ATOM   1518  OD1 ASP A 231     -15.874  62.919  15.144  1.00 56.78  O
ATOM   1519  OD2 ASP A 231     -14.378  62.532  16.604  1.00 52.61  O
ATOM   1520  C   ASP A 231     -12.643  65.006  17.132  1.00 59.25  C
ATOM   1521  O   ASP A 231     -12.071  64.281  17.963  1.00 59.47  O
ATOM   1522  N   GLU A 232     -13.327  66.096  17.472  1.00 59.95  N
ATOM   1523  CA  GLU A 232     -13.374  66.578  18.846  1.00 60.49  C
ATOM   1524  CB  GLU A 232     -14.392  67.707  18.999  1.00 60.69  C
ATOM   1525  CG  GLU A 232     -14.262  68.439  20.327  1.00 62.80  C
ATOM   1526  CD  GLU A 232     -15.371  69.443  20.600  1.00 64.81  C
ATOM   1527  OE1 GLU A 232     -15.835  70.129  19.655  1.00 64.23  O
ATOM   1528  OE2 GLU A 232     -15.763  69.552  21.786  1.00 66.36  O
ATOM   1529  C   GLU A 232     -13.688  65.470  19.835  1.00 61.01  C
ATOM   1530  O   GLU A 232     -12.965  65.259  20.806  1.00 61.33  O
ATOM   1531  N   ALA A 233     -14.768  64.749  19.610  1.00 61.29  N
ATOM   1532  CA  ALA A 233     -15.084  63.702  20.566  1.00 62.40  C
ATOM   1533  CB  ALA A 233     -16.260  62.827  20.086  1.00 62.33  C
ATOM   1534  C   ALA A 233     -13.845  62.856  20.832  1.00 62.73  C
ATOM   1535  O   ALA A 233     -13.570  62.480  21.987  1.00 62.85  O
ATOM   1536  N   ALA A 234     -13.099  62.571  19.762  1.00 63.03  N
ATOM   1537  CA  ALA A 234     -11.905  61.732  19.863  1.00 63.04  C
ATOM   1538  CB  ALA A 234     -11.314  61.470  18.500  1.00 63.22  C
ATOM   1539  C   ALA A 234     -10.877  62.372  20.781  1.00 62.74  C
ATOM   1540  O   ALA A 234     -10.310  61.709  21.650  1.00 62.34  O
ATOM   1541  N   LEU A 235     -10.629  63.660  20.575  1.00 62.87  N
ATOM   1542  CA  LEU A 235      -9.755  64.399  21.462  1.00 63.19  C
ATOM   1543  CB  LEU A 235      -9.690  65.857  21.055  1.00 62.82  C
ATOM   1544  CG  LEU A 235      -8.702  66.714  21.845  1.00 63.84  C
ATOM   1545  CD1 LEU A 235      -7.263  66.381  21.484  1.00 63.36  C
ATOM   1546  CD2 LEU A 235      -8.964  68.169  21.552  1.00 62.97  C
ATOM   1547  C   LEU A 235     -10.324  64.295  22.865  1.00 63.74  C
ATOM   1548  O   LEU A 235      -9.652  63.815  23.785  1.00 63.51  O
ATOM   1549  N   GLN A 236     -11.577  64.723  23.025  1.00 64.28  N
ATOM   1550  CA  GLN A 236     -12.181  64.736  24.350  1.00 64.87  C
ATOM   1551  CB  GLN A 236     -13.638  65.248  24.352  1.00 65.35  C
ATOM   1552  CG  GLN A 236     -13.805  66.765  24.160  1.00 66.95  C
ATOM   1553  CD  GLN A 236     -15.129  67.323  24.741  1.00 69.48  C
ATOM   1554  OE1 GLN A 236     -15.258  67.462  25.962  1.00 70.18  O
ATOM   1555  NE2 GLN A 236     -16.092  67.662  23.865  1.00 68.05  N
ATOM   1556  C   GLN A 236     -12.107  63.355  24.939  1.00 64.68  C
```

Figure 2-30

```
ATOM   1557  O   GLN A 236     -11.925  63.204  26.141  1.00 64.71  O
ATOM   1558  N   GLU A 237     -12.252  62.337  24.102  1.00 64.80  N
ATOM   1559  CA  GLU A 237     -12.193  60.980  24.617  1.00 64.83  C
ATOM   1560  CB  GLU A 237     -12.657  59.971  23.584  1.00 65.24  C
ATOM   1561  CG  GLU A 237     -12.309  58.548  23.960  1.00 67.72  C
ATOM   1562  CD  GLU A 237     -13.286  57.946  24.947  1.00 70.85  C
ATOM   1563  OE1 GLU A 237     -13.520  56.726  24.848  1.00 72.03  O
ATOM   1564  OE2 GLU A 237     -13.820  58.682  25.813  1.00 73.10  O
ATOM   1565  C   GLU A 237     -10.794  60.624  25.096  1.00 64.32  C
ATOM   1566  O   GLU A 237     -10.636  59.944  26.114  1.00 64.40  O
ATOM   1567  N   ALA A 238      -9.784  61.084  24.366  1.00 63.65  N
ATOM   1568  CA  ALA A 238      -8.397  60.852  24.738  1.00 63.07  C
ATOM   1569  CB  ALA A 238      -7.474  61.325  23.632  1.00 62.37  C
ATOM   1570  C   ALA A 238      -8.136  61.631  26.019  1.00 62.70  C
ATOM   1571  O   ALA A 238      -7.638  61.096  27.014  1.00 62.29  O
ATOM   1572  N   ILE A 239      -8.493  62.909  25.974  1.00 62.70  N
ATOM   1573  CA  ILE A 239      -8.341  63.768  27.122  1.00 62.90  C
ATOM   1574  CB  ILE A 239      -8.921  65.135  26.831  1.00 62.98  C
ATOM   1575  CG1 ILE A 239      -7.833  66.067  26.333  1.00 61.07  C
ATOM   1576  CD1 ILE A 239      -8.369  67.224  25.617  1.00 61.38  C
ATOM   1577  CG2 ILE A 239      -9.566  65.719  28.090  1.00 63.43  C
ATOM   1578  C   ILE A 239      -9.085  63.117  28.259  1.00 63.62  C
ATOM   1579  O   ILE A 239      -8.632  63.148  29.415  1.00 63.67  O
ATOM   1580  N   ALA A 240     -10.217  62.495  27.925  1.00 64.08  N
ATOM   1581  CA  ALA A 240     -11.008  61.800  28.938  1.00 64.70  C
ATOM   1582  CB  ALA A 240     -12.394  61.441  28.432  1.00 65.13  C
ATOM   1583  C   ALA A 240     -10.284  60.564  29.455  1.00 65.01  C
ATOM   1584  O   ALA A 240     -10.336  60.272  30.645  1.00 65.19  O
ATOM   1585  N   ALA A 241      -9.609  59.834  28.579  1.00 65.56  N
ATOM   1586  CA  ALA A 241      -8.846  58.684  29.042  1.00 66.39  C
ATOM   1587  CB  ALA A 241      -8.361  57.849  27.865  1.00 66.49  C
ATOM   1588  C   ALA A 241      -7.670  59.155  29.924  1.00 66.78  C
ATOM   1589  O   ALA A 241      -7.308  58.513  30.905  1.00 66.38  O
ATOM   1590  N   TYR A 242      -7.088  60.295  29.574  1.00 67.42  N
ATOM   1591  CA  TYR A 242      -6.008  60.881  30.370  1.00 68.41  C
ATOM   1592  CB  TYR A 242      -5.651  62.229  29.780  1.00 68.09  C
ATOM   1593  CG  TYR A 242      -4.553  63.005  30.448  1.00 66.55  C
ATOM   1594  CD1 TYR A 242      -4.835  64.200  31.085  1.00 64.95  C
ATOM   1595  CE1 TYR A 242      -3.851  64.948  31.671  1.00 63.78  C
ATOM   1596  CZ  TYR A 242      -2.557  64.522  31.621  1.00 63.68  C
ATOM   1597  OH  TYR A 242      -1.611  65.299  32.215  1.00 63.50  O
ATOM   1598  CE2 TYR A 242      -2.222  63.347  30.977  1.00 64.19  C
ATOM   1599  CD2 TYR A 242      -3.231  62.593  30.383  1.00 66.30  C
ATOM   1600  C   TYR A 242      -6.393  61.109  31.817  1.00 69.30  C
ATOM   1601  O   TYR A 242      -5.600  60.856  32.713  1.00 69.20  O
ATOM   1602  N   ASN A 243      -7.600  61.626  32.026  1.00 70.78  N
ATOM   1603  CA  ASN A 243      -8.087  61.924  33.365  1.00 71.94  C
ATOM   1604  CB  ASN A 243      -9.383  62.744  33.312  1.00 71.78  C
ATOM   1605  CG  ASN A 243      -9.135  64.248  33.236  1.00 71.71  C
ATOM   1606  OD1 ASN A 243      -8.701  64.764  32.215  1.00 71.73  O
ATOM   1607  ND2 ASN A 243      -9.430  64.957  34.320  1.00 71.83  N
ATOM   1608  C   ASN A 243      -8.301  60.691  34.221  1.00 73.01  C
ATOM   1609  O   ASN A 243      -8.232  60.789  35.421  1.00 73.12  O
ATOM   1610  N   ALA A 244      -8.554  59.531  33.628  1.00 74.50  N
ATOM   1611  CA  ALA A 244      -8.813  58.335  34.432  1.00 75.98  C
ATOM   1612  CB  ALA A 244      -9.603  57.317  33.629  1.00 76.16  C
ATOM   1613  C   ALA A 244      -7.548  57.698  35.041  1.00 77.24  C
```

Figure 2-31

```
ATOM   1614  O   ALA A 244      -7.616  56.890  35.976  1.00 76.88  O
ATOM   1615  N   ARG A 245      -6.396  58.073  34.502  1.00 78.71  N
ATOM   1616  CA  ARG A 245      -5.126  57.586  34.997  1.00 80.01  C
ATOM   1617  CB  ARG A 245      -4.087  57.655  33.874  1.00 80.02  C
ATOM   1618  CG  ARG A 245      -4.630  57.379  32.456  1.00 78.89  C
ATOM   1619  CD  ARG A 245      -4.162  56.056  31.826  1.00 77.38  C
ATOM   1620  NE  ARG A 245      -4.595  55.876  30.436  1.00 74.17  N
ATOM   1621  CZ  ARG A 245      -3.818  56.047  29.369  1.00 71.76  C
ATOM   1622  NH1 ARG A 245      -4.315  55.852  28.159  1.00 69.30  N
ATOM   1623  NH2 ARG A 245      -2.547  56.414  29.505  1.00 71.29  N
ATOM   1624  C   ARG A 245      -4.661  58.447  36.175  1.00 81.18  C
ATOM   1625  O   ARG A 245      -3.995  57.963  37.085  1.00 81.42  O
ATOM   1626  N   HIS A 246      -5.037  59.723  36.144  1.00 82.56  N
ATOM   1627  CA  HIS A 246      -4.614  60.719  37.129  1.00 83.96  C
ATOM   1628  CB  HIS A 246      -4.416  62.078  36.438  1.00 84.45  C
ATOM   1629  CG  HIS A 246      -3.000  62.360  36.034  1.00 86.45  C
ATOM   1630  ND1 HIS A 246      -2.522  62.118  34.763  1.00 88.08  N
ATOM   1631  CE1 HIS A 246      -1.250  62.469  34.698  1.00 88.40  C
ATOM   1632  NE2 HIS A 246      -0.885  62.936  35.879  1.00 88.51  N
ATOM   1633  CD2 HIS A 246      -1.961  62.879  36.734  1.00 87.99  C
ATOM   1634  C   HIS A 246      -5.564  60.877  38.328  1.00 84.24  C
ATOM   1635  O   HIS A 246      -6.779  60.683  38.255  1.00 85.12  O
ATOM   1636  OXT HIS A 246      -5.164  61.220  39.449  1.00 84.00  O
ATOM   1637  N   GLN B  18      10.279  32.925  13.877  1.00 52.98  N
ATOM   1638  CA  GLN B  18       9.726  34.303  13.993  1.00 52.56  C
ATOM   1639  CB  GLN B  18       8.302  34.348  13.449  1.00 53.13  C
ATOM   1640  CG  GLN B  18       7.924  33.125  12.634  1.00 55.75  C
ATOM   1641  CD  GLN B  18       7.372  31.986  13.499  1.00 58.19  C
ATOM   1642  OE1 GLN B  18       6.527  32.208  14.369  1.00 58.28  O
ATOM   1643  NE2 GLN B  18       7.853  30.769  13.256  1.00 59.93  N
ATOM   1644  C   GLN B  18       9.730  34.740  15.453  1.00 51.36  C
ATOM   1645  O   GLN B  18       8.730  34.543  16.159  1.00 51.76  O
ATOM   1646  N   VAL B  19      10.835  35.355  15.900  1.00 49.23  N
ATOM   1647  CA  VAL B  19      10.939  35.776  17.297  1.00 46.32  C
ATOM   1648  CB  VAL B  19      11.378  34.610  18.144  1.00 46.21  C
ATOM   1649  CG1 VAL B  19      11.695  35.048  19.539  1.00 46.20  C
ATOM   1650  CG2 VAL B  19      10.265  33.561  18.148  1.00 46.01  C
ATOM   1651  C   VAL B  19      11.795  37.010  17.582  1.00 44.95  C
ATOM   1652  O   VAL B  19      12.970  37.073  17.187  1.00 45.37  O
ATOM   1653  N   PRO B  20      11.201  37.998  18.265  1.00 42.41  N
ATOM   1654  CA  PRO B  20      11.905  39.231  18.598  1.00 40.83  C
ATOM   1655  CB  PRO B  20      10.932  39.928  19.543  1.00 40.83  C
ATOM   1656  CG  PRO B  20      10.061  38.827  20.024  1.00 41.46  C
ATOM   1657  CD  PRO B  20       9.831  38.023  18.791  1.00 42.28  C
ATOM   1658  C   PRO B  20      13.241  38.960  19.296  1.00 38.52  C
ATOM   1659  O   PRO B  20      13.289  38.414  20.385  1.00 38.49  O
ATOM   1660  N   ALA B  21      14.321  39.388  18.667  1.00 36.48  N
ATOM   1661  CA  ALA B  21      15.657  39.219  19.235  1.00 33.65  C
ATOM   1662  CB  ALA B  21      16.686  39.772  18.287  1.00 34.30  C
ATOM   1663  C   ALA B  21      15.823  39.818  20.611  1.00 31.72  C
ATOM   1664  O   ALA B  21      16.359  39.176  21.493  1.00 31.03  O
ATOM   1665  N   HIS B  22      15.338  41.045  20.809  1.00 29.56  N
ATOM   1666  CA  HIS B  22      15.516  41.764  22.065  1.00 27.04  C
ATOM   1667  CB  HIS B  22      16.524  42.937  21.868  1.00 25.78  C
ATOM   1668  CG  HIS B  22      16.863  43.707  23.120  1.00 22.83  C
ATOM   1669  ND1 HIS B  22      17.791  44.728  23.128  1.00 20.49  N
ATOM   1670  CE1 HIS B  22      17.942  45.191  24.356  1.00 16.25  C
```

Figure 2-32

```
ATOM   1671  NE2 HIS B  22      17.119  44.534  25.147  1.00 20.68  N
ATOM   1672  CD2 HIS B  22      16.426  43.601  24.397  1.00 22.32  C
ATOM   1673  C   HIS B  22      14.157  42.279  22.586  1.00 28.00  C
ATOM   1674  O   HIS B  22      13.412  43.023  21.888  1.00 27.55  O
ATOM   1675  N   ILE B  23      13.826  41.878  23.806  1.00 27.44  N
ATOM   1676  CA  ILE B  23      12.604  42.319  24.421  1.00 27.81  C
ATOM   1677  CB  ILE B  23      11.741  41.131  24.819  1.00 27.57  C
ATOM   1678  CG1 ILE B  23      11.508  40.176  23.633  1.00 27.81  C
ATOM   1679  CD1 ILE B  23      10.676  38.865  24.050  1.00 28.40  C
ATOM   1680  CG2 ILE B  23      10.458  41.656  25.403  1.00 24.75  C
ATOM   1681  C   ILE B  23      12.855  43.073  25.702  1.00 28.74  C
ATOM   1682  O   ILE B  23      13.473  42.510  26.612  1.00 29.18  O
ATOM   1683  N   GLY B  24      12.368  44.319  25.797  1.00 28.72  N
ATOM   1684  CA  GLY B  24      12.404  45.043  27.056  1.00 28.87  C
ATOM   1685  C   GLY B  24      11.134  44.758  27.845  1.00 29.71  C
ATOM   1686  O   GLY B  24      10.085  44.597  27.269  1.00 29.00  O
ATOM   1687  N   ILE B  25      11.220  44.683  29.171  1.00 31.18  N
ATOM   1688  CA  ILE B  25      10.067  44.358  29.972  1.00 31.60  C
ATOM   1689  CB  ILE B  25      10.107  42.864  30.406  1.00 32.35  C
ATOM   1690  CG1 ILE B  25      10.244  41.899  29.217  1.00 28.96  C
ATOM   1691  CD1 ILE B  25      10.104  40.458  29.599  1.00 27.94  C
ATOM   1692  CG2 ILE B  25       8.887  42.546  31.213  1.00 31.33  C
ATOM   1693  C   ILE B  25      10.017  45.243  31.226  1.00 33.46  C
ATOM   1694  O   ILE B  25      10.962  45.275  32.034  1.00 32.88  O
ATOM   1695  N   ILE B  26       8.912  45.969  31.394  1.00 34.32  N
ATOM   1696  CA  ILE B  26       8.776  46.807  32.557  1.00 35.22  C
ATOM   1697  CB  ILE B  26       8.147  48.147  32.133  1.00 35.09  C
ATOM   1698  CG1 ILE B  26       8.991  48.790  31.040  1.00 34.65  C
ATOM   1699  CD1 ILE B  26       8.561  50.185  30.645  1.00 32.60  C
ATOM   1700  CG2 ILE B  26       7.980  49.071  33.309  1.00 34.58  C
ATOM   1701  C   ILE B  26       7.889  46.015  33.523  1.00 35.91  C
ATOM   1702  O   ILE B  26       6.713  45.830  33.289  1.00 35.67  O
ATOM   1703  N   MET B  27       8.487  45.526  34.589  1.00 37.35  N
ATOM   1704  CA  MET B  27       7.807  44.701  35.577  1.00 39.07  C
ATOM   1705  CB  MET B  27       8.832  43.860  36.330  1.00 38.20  C
ATOM   1706  CG  MET B  27       9.777  43.078  35.465  1.00 37.87  C
ATOM   1707  SD  MET B  27      11.226  42.507  36.390  1.00 39.94  S
ATOM   1708  CE  MET B  27      11.685  41.323  35.327  1.00 39.48  C
ATOM   1709  C   MET B  27       7.078  45.562  36.594  1.00 40.56  C
ATOM   1710  O   MET B  27       7.683  46.002  37.557  1.00 41.65  O
ATOM   1711  N   ASP B  28       5.794  45.816  36.378  1.00 42.24  N
ATOM   1712  CA  ASP B  28       4.985  46.600  37.304  1.00 43.69  C
ATOM   1713  CB  ASP B  28       4.374  47.786  36.567  1.00 43.25  C
ATOM   1714  CG  ASP B  28       3.834  48.851  37.506  1.00 44.27  C
ATOM   1715  OD1 ASP B  28       3.929  48.670  38.731  1.00 47.11  O
ATOM   1716  OD2 ASP B  28       3.294  49.916  37.121  1.00 45.82  O
ATOM   1717  C   ASP B  28       3.873  45.701  37.878  1.00 45.24  C
ATOM   1718  O   ASP B  28       3.260  44.922  37.155  1.00 44.56  O
ATOM   1719  N   GLY B  29       3.619  45.799  39.176  1.00 47.27  N
ATOM   1720  CA  GLY B  29       2.544  45.018  39.757  1.00 49.70  C
ATOM   1721  C   GLY B  29       2.759  44.376  41.108  1.00 51.20  C
ATOM   1722  O   GLY B  29       1.831  44.354  41.906  1.00 52.56  O
ATOM   1723  N   ASN B  30       3.951  43.851  41.370  1.00 52.03  N
ATOM   1724  CA  ASN B  30       4.235  43.172  42.633  1.00 53.33  C
ATOM   1725  CB  ASN B  30       5.731  43.209  42.938  1.00 52.86  C
ATOM   1726  CG  ASN B  30       6.565  42.574  41.847  1.00 52.62  C
ATOM   1727  OD1 ASN B  30       7.774  42.450  41.984  1.00 55.64  O
```

Figure 2-33

```
ATOM   1728  ND2 ASN B  30       5.936  42.183  40.763  1.00 50.90  N
ATOM   1729  C   ASN B  30       3.448  43.674  43.845  1.00 54.84  C
ATOM   1730  O   ASN B  30       3.210  42.929  44.796  1.00 54.84  O
ATOM   1731  N   GLY B  31       3.059  44.945  43.810  1.00 56.34  N
ATOM   1732  CA  GLY B  31       2.304  45.533  44.898  1.00 58.67  C
ATOM   1733  C   GLY B  31       0.814  45.271  44.831  1.00 60.21  C
ATOM   1734  O   GLY B  31       0.225  44.810  45.801  1.00 60.28  O
ATOM   1735  N   ARG B  32       0.201  45.594  43.694  1.00 62.01  N
ATOM   1736  CA  ARG B  32      -1.232  45.389  43.503  1.00 63.79  C
ATOM   1737  CB  ARG B  32      -1.662  45.806  42.094  1.00 63.77  C
ATOM   1738  CG  ARG B  32      -1.817  47.295  41.897  1.00 64.85  C
ATOM   1739  CD  ARG B  32      -2.994  47.683  41.017  1.00 66.66  C
ATOM   1740  NE  ARG B  32      -2.665  47.680  39.596  1.00 67.89  N
ATOM   1741  CZ  ARG B  32      -3.562  47.656  38.622  1.00 67.63  C
ATOM   1742  NH1 ARG B  32      -3.167  47.669  37.361  1.00 68.57  N
ATOM   1743  NH2 ARG B  32      -4.853  47.619  38.904  1.00 68.02  N
ATOM   1744  C   ARG B  32      -1.554  43.918  43.708  1.00 64.76  C
ATOM   1745  O   ARG B  32      -2.534  43.560  44.357  1.00 64.86  O
ATOM   1746  N   TRP B  33      -0.701  43.078  43.144  1.00 65.85  N
ATOM   1747  CA  TRP B  33      -0.851  41.643  43.249  1.00 67.17  C
ATOM   1748  CB  TRP B  33       0.309  40.962  42.524  1.00 66.81  C
ATOM   1749  CG  TRP B  33       0.207  39.473  42.400  1.00 66.16  C
ATOM   1750  CD1 TRP B  33      -0.432  38.767  41.420  1.00 65.50  C
ATOM   1751  NE1 TRP B  33      -0.281  37.419  41.639  1.00 65.21  N
ATOM   1752  CE2 TRP B  33       0.466  37.237  42.773  1.00 64.22  C
ATOM   1753  CD2 TRP B  33       0.794  38.505  43.271  1.00 64.39  C
ATOM   1754  CE3 TRP B  33       1.562  38.587  44.435  1.00 63.87  C
ATOM   1755  CZ3 TRP B  33       1.969  37.441  45.042  1.00 63.55  C
ATOM   1756  CH2 TRP B  33       1.631  36.192  44.526  1.00 64.45  C
ATOM   1757  CZ2 TRP B  33       0.879  36.069  43.392  1.00 64.55  C
ATOM   1758  C   TRP B  33      -0.893  41.211  44.708  1.00 68.45  C
ATOM   1759  O   TRP B  33      -1.557  40.236  45.048  1.00 68.34  O
ATOM   1760  N   ALA B  34      -0.185  41.941  45.564  1.00 70.09  N
ATOM   1761  CA  ALA B  34      -0.133  41.622  46.989  1.00 71.73  C
ATOM   1762  CB  ALA B  34       1.072  42.277  47.638  1.00 71.76  C
ATOM   1763  C   ALA B  34      -1.415  41.999  47.730  1.00 72.83  C
ATOM   1764  O   ALA B  34      -2.172  41.122  48.153  1.00 72.72  O
ATOM   1765  N   LYS B  35      -1.669  43.297  47.875  1.00 74.30  N
ATOM   1766  CA  LYS B  35      -2.860  43.744  48.594  1.00 76.07  C
ATOM   1767  CB  LYS B  35      -3.011  45.268  48.553  1.00 75.88  C
ATOM   1768  CG  LYS B  35      -3.203  45.851  47.175  1.00 77.46  C
ATOM   1769  CD  LYS B  35      -2.887  47.359  47.127  1.00 79.37  C
ATOM   1770  CE  LYS B  35      -1.462  47.639  46.626  1.00 79.80  C
ATOM   1771  NZ  LYS B  35      -1.097  49.083  46.661  1.00 80.17  N
ATOM   1772  C   LYS B  35      -4.113  43.027  48.090  1.00 77.05  C
ATOM   1773  O   LYS B  35      -5.071  42.834  48.837  1.00 77.40  O
ATOM   1774  N   LYS B  36      -4.080  42.603  46.829  1.00 78.20  N
ATOM   1775  CA  LYS B  36      -5.180  41.874  46.213  1.00 79.16  C
ATOM   1776  CB  LYS B  36      -4.898  41.713  44.712  1.00 79.46  C
ATOM   1777  CG  LYS B  36      -6.097  41.915  43.779  1.00 81.32  C
ATOM   1778  CD  LYS B  36      -5.698  42.685  42.503  1.00 84.29  C
ATOM   1779  CE  LYS B  36      -6.643  42.381  41.336  1.00 86.82  C
ATOM   1780  NZ  LYS B  36      -6.168  42.931  40.034  1.00 86.99  N
ATOM   1781  C   LYS B  36      -5.305  40.509  46.898  1.00 79.42  C
ATOM   1782  O   LYS B  36      -6.395  40.068  47.263  1.00 79.43  O
ATOM   1783  N   ARG B  37      -4.162  39.861  47.082  1.00 79.68  N
ATOM   1784  CA  ARG B  37      -4.066  38.553  47.715  1.00 79.76  C
```

Figure 2-34

```
ATOM   1785  CB  ARG B  37      -2.730  37.931  47.303  1.00 79.94  C
ATOM   1786  CG  ARG B  37      -2.722  36.437  47.051  1.00 81.22  C
ATOM   1787  CD  ARG B  37      -1.863  36.018  45.852  1.00 82.48  C
ATOM   1788  NE  ARG B  37      -2.540  36.323  44.592  1.00 84.00  N
ATOM   1789  CZ  ARG B  37      -2.812  35.432  43.649  1.00 84.81  C
ATOM   1790  NH1 ARG B  37      -2.450  34.168  43.805  1.00 84.92  N
ATOM   1791  NH2 ARG B  37      -3.440  35.806  42.542  1.00 85.68  N
ATOM   1792  C   ARG B  37      -4.096  38.751  49.230  1.00 79.76  C
ATOM   1793  O   ARG B  37      -3.697  37.872  49.993  1.00 79.05  O
ATOM   1794  N   MET B  38      -4.562  39.924  49.652  1.00 80.08  N
ATOM   1795  CA  MET B  38      -4.581  40.316  51.063  1.00 80.42  C
ATOM   1796  CB  MET B  38      -5.855  39.809  51.776  1.00 81.02  C
ATOM   1797  CG  MET B  38      -6.487  40.821  52.768  1.00 82.86  C
ATOM   1798  SD  MET B  38      -7.503  40.099  54.160  1.00 86.66  S
ATOM   1799  CE  MET B  38      -7.923  41.627  55.177  1.00 84.61  C
ATOM   1800  C   MET B  38      -3.300  39.837  51.761  1.00 79.87  C
ATOM   1801  O   MET B  38      -3.336  39.312  52.866  1.00 79.71  O
ATOM   1802  N   GLN B  39      -2.170  40.007  51.081  1.00 79.38  N
ATOM   1803  CA  GLN B  39      -0.863  39.624  51.605  1.00 78.72  C
ATOM   1804  CB  GLN B  39      -0.150  38.667  50.655  1.00 78.87  C
ATOM   1805  CG  GLN B  39      -0.844  37.363  50.426  1.00 81.00  C
ATOM   1806  CD  GLN B  39      -0.801  36.480  51.641  1.00 83.99  C
ATOM   1807  OE1 GLN B  39      -0.051  36.745  52.589  1.00 85.39  O
ATOM   1808  NE2 GLN B  39      -1.601  35.421  51.627  1.00 84.75  N
ATOM   1809  C   GLN B  39      -0.014  40.870  51.720  1.00 77.80  C
ATOM   1810  O   GLN B  39      -0.272  41.870  51.052  1.00 77.66  O
ATOM   1811  N   PRO B  40       0.991  40.821  52.582  1.00 76.85  N
ATOM   1812  CA  PRO B  40       1.930  41.932  52.718  1.00 75.86  C
ATOM   1813  CB  PRO B  40       2.858  41.455  53.840  1.00 75.92  C
ATOM   1814  CG  PRO B  40       2.735  39.972  53.808  1.00 76.66  C
ATOM   1815  CD  PRO B  40       1.276  39.741  53.544  1.00 77.10  C
ATOM   1816  C   PRO B  40       2.729  42.159  51.430  1.00 74.70  C
ATOM   1817  O   PRO B  40       3.057  41.205  50.721  1.00 74.31  O
ATOM   1818  N   ARG B  41       3.029  43.427  51.160  1.00 73.12  N
ATOM   1819  CA  ARG B  41       3.809  43.884  50.016  1.00 71.64  C
ATOM   1820  CB  ARG B  41       4.278  45.299  50.313  1.00 71.81  C
ATOM   1821  CG  ARG B  41       4.733  46.085  49.132  1.00 72.72  C
ATOM   1822  CD  ARG B  41       4.577  47.578  49.346  1.00 76.01  C
ATOM   1823  NE  ARG B  41       3.291  48.083  48.869  1.00 77.79  N
ATOM   1824  CZ  ARG B  41       2.773  49.238  49.241  1.00 78.71  C
ATOM   1825  NH1 ARG B  41       3.436  49.993  50.107  1.00 80.56  N
ATOM   1826  NH2 ARG B  41       1.604  49.643  48.752  1.00 78.42  N
ATOM   1827  C   ARG B  41       5.021  43.026  49.621  1.00 70.48  C
ATOM   1828  O   ARG B  41       5.216  42.720  48.451  1.00 69.94  O
ATOM   1829  N   VAL B  42       5.839  42.650  50.595  1.00 69.38  N
ATOM   1830  CA  VAL B  42       7.056  41.892  50.318  1.00 68.28  C
ATOM   1831  CB  VAL B  42       7.911  41.683  51.617  1.00 68.54  C
ATOM   1832  CG1 VAL B  42       7.060  41.150  52.753  1.00 68.98  C
ATOM   1833  CG2 VAL B  42       9.118  40.771  51.374  1.00 68.28  C
ATOM   1834  C   VAL B  42       6.754  40.567  49.609  1.00 67.19  C
ATOM   1835  O   VAL B  42       7.598  40.019  48.905  1.00 67.04  O
ATOM   1836  N   PHE B  43       5.540  40.067  49.796  1.00 66.08  N
ATOM   1837  CA  PHE B  43       5.103  38.837  49.152  1.00 65.22  C
ATOM   1838  CB  PHE B  43       3.656  38.498  49.555  1.00 65.88  C
ATOM   1839  CG  PHE B  43       3.311  37.021  49.459  1.00 67.59  C
ATOM   1840  CD1 PHE B  43       3.754  36.122  50.422  1.00 69.83  C
ATOM   1841  CE1 PHE B  43       3.428  34.752  50.336  1.00 71.83  C
```

Figure 2-35

```
ATOM   1842  CZ  PHE B  43       2.646  34.284  49.279  1.00 71.32  C
ATOM   1843  CE2 PHE B  43       2.194  35.171  48.322  1.00 70.58  C
ATOM   1844  CD2 PHE B  43       2.524  36.536  48.417  1.00 69.89  C
ATOM   1845  C   PHE B  43       5.182  39.029  47.649  1.00 63.79  C
ATOM   1846  O   PHE B  43       5.954  38.369  46.967  1.00 63.44  O
ATOM   1847  N   GLY B  44       4.381  39.955  47.142  1.00 62.39  N
ATOM   1848  CA  GLY B  44       4.352  40.234  45.723  1.00 60.87  C
ATOM   1849  C   GLY B  44       5.726  40.284  45.091  1.00 59.83  C
ATOM   1850  O   GLY B  44       5.945  39.702  44.034  1.00 59.32  O
ATOM   1851  N   HIS B  45       6.656  40.981  45.738  1.00 59.68  N
ATOM   1852  CA  HIS B  45       7.999  41.137  45.186  1.00 59.38  C
ATOM   1853  CB  HIS B  45       8.818  42.200  45.952  1.00 59.77  C
ATOM   1854  CG  HIS B  45       8.543  43.616  45.508  1.00 60.77  C
ATOM   1855  ND1 HIS B  45       7.785  44.501  46.248  1.00 60.83  N
ATOM   1856  CE1 HIS B  45       7.700  45.654  45.608  1.00 60.36  C
ATOM   1857  NE2 HIS B  45       8.377  45.552  44.479  1.00 60.37  N
ATOM   1858  CD2 HIS B  45       8.912  44.290  44.390  1.00 60.22  C
ATOM   1859  C   HIS B  45       8.732  39.791  45.061  1.00 58.99  C
ATOM   1860  O   HIS B  45       9.419  39.544  44.066  1.00 58.80  O
ATOM   1861  N   LYS B  46       8.567  38.904  46.041  1.00 58.28  N
ATOM   1862  CA  LYS B  46       9.221  37.597  45.956  1.00 57.72  C
ATOM   1863  CB  LYS B  46       9.084  36.797  47.257  1.00 57.96  C
ATOM   1864  CG  LYS B  46      10.371  36.705  48.070  1.00 59.95  C
ATOM   1865  CD  LYS B  46      10.124  36.223  49.522  1.00 63.03  C
ATOM   1866  CE  LYS B  46      11.253  36.652  50.454  1.00 62.73  C
ATOM   1867  NZ  LYS B  46      11.639  38.085  50.193  1.00 63.55  N
ATOM   1868  C   LYS B  46       8.648  36.810  44.784  1.00 56.80  C
ATOM   1869  O   LYS B  46       9.379  36.136  44.053  1.00 56.40  O
ATOM   1870  N   ALA B  47       7.335  36.923  44.603  1.00 55.58  N
ATOM   1871  CA  ALA B  47       6.653  36.234  43.517  1.00 54.96  C
ATOM   1872  CB  ALA B  47       5.154  36.370  43.656  1.00 54.55  C
ATOM   1873  C   ALA B  47       7.112  36.830  42.210  1.00 54.80  C
ATOM   1874  O   ALA B  47       7.081  36.188  41.160  1.00 54.84  O
ATOM   1875  N   GLY B  48       7.533  38.087  42.292  1.00 54.39  N
ATOM   1876  CA  GLY B  48       8.011  38.802  41.135  1.00 53.55  C
ATOM   1877  C   GLY B  48       9.267  38.207  40.548  1.00 53.11  C
ATOM   1878  O   GLY B  48       9.451  38.245  39.334  1.00 53.44  O
ATOM   1879  N   MET B  49      10.142  37.674  41.393  1.00 52.55  N
ATOM   1880  CA  MET B  49      11.390  37.088  40.899  1.00 52.33  C
ATOM   1881  CB  MET B  49      12.428  36.921  42.016  1.00 52.45  C
ATOM   1882  CG  MET B  49      12.169  37.690  43.278  1.00 54.86  C
ATOM   1883  SD  MET B  49      13.724  38.317  43.940  1.00 61.04  S
ATOM   1884  CE  MET B  49      13.303  38.515  45.641  1.00 59.68  C
ATOM   1885  C   MET B  49      11.095  35.724  40.291  1.00 50.91  C
ATOM   1886  O   MET B  49      11.776  35.274  39.360  1.00 50.50  O
ATOM   1887  N   GLU B  50      10.088  35.065  40.860  1.00 49.35  N
ATOM   1888  CA  GLU B  50       9.650  33.771  40.376  1.00 48.15  C
ATOM   1889  CB  GLU B  50       8.516  33.204  41.246  1.00 48.50  C
ATOM   1890  CG  GLU B  50       8.961  32.737  42.626  1.00 50.97  C
ATOM   1891  CD  GLU B  50       9.475  31.289  42.663  1.00 54.35  C
ATOM   1892  OE1 GLU B  50       9.796  30.821  43.779  1.00 56.15  O
ATOM   1893  OE2 GLU B  50       9.571  30.626  41.602  1.00 54.58  O
ATOM   1894  C   GLU B  50       9.182  34.019  38.966  1.00 46.26  C
ATOM   1895  O   GLU B  50       9.588  33.337  38.047  1.00 45.33  O
ATOM   1896  N   ALA B  51       8.317  35.012  38.812  1.00 45.24  N
ATOM   1897  CA  ALA B  51       7.889  35.440  37.489  1.00 43.86  C
ATOM   1898  CB  ALA B  51       7.091  36.697  37.575  1.00 43.12  C
```

Figure 2-36

```
ATOM   1899  C   ALA B  51       9.115  35.676  36.626  1.00 42.68  C
ATOM   1900  O   ALA B  51       9.187  35.213  35.493  1.00 42.77  O
ATOM   1901  N   LEU B  52      10.100  36.376  37.164  1.00 41.93  N
ATOM   1902  CA  LEU B  52      11.270  36.672  36.341  1.00 41.92  C
ATOM   1903  CB  LEU B  52      12.263  37.572  37.072  1.00 41.60  C
ATOM   1904  CG  LEU B  52      13.463  37.835  36.169  1.00 41.14  C
ATOM   1905  CD1 LEU B  52      13.017  38.544  34.888  1.00 38.13  C
ATOM   1906  CD2 LEU B  52      14.492  38.619  36.905  1.00 39.82  C
ATOM   1907  C   LEU B  52      11.963  35.400  35.866  1.00 41.60  C
ATOM   1908  O   LEU B  52      12.257  35.254  34.677  1.00 41.80  O
ATOM   1909  N   GLN B  53      12.191  34.485  36.809  1.00 41.40  N
ATOM   1910  CA  GLN B  53      12.838  33.204  36.555  1.00 41.02  C
ATOM   1911  CB  GLN B  53      12.707  32.319  37.797  1.00 41.23  C
ATOM   1912  CG  GLN B  53      13.449  30.998  37.689  1.00 41.36  C
ATOM   1913  CD  GLN B  53      14.911  31.210  37.831  1.00 42.80  C
ATOM   1914  OE1 GLN B  53      15.388  32.310  37.552  1.00 44.50  O
ATOM   1915  NE2 GLN B  53      15.636  30.201  38.317  1.00 45.40  N
ATOM   1916  C   GLN B  53      12.237  32.452  35.391  1.00 41.40  C
ATOM   1917  O   GLN B  53      12.951  31.966  34.485  1.00 40.85  O
ATOM   1918  N   THR B  54      10.917  32.314  35.401  1.00 41.77  N
ATOM   1919  CA  THR B  54      10.341  31.529  34.329  1.00 42.61  C
ATOM   1920  CB  THR B  54       8.955  30.899  34.693  1.00 42.86  C
ATOM   1921  OG1 THR B  54       8.035  31.182  33.634  1.00 45.32  O
ATOM   1922  CG2 THR B  54       8.333  31.578  35.844  1.00 42.51  C
ATOM   1923  C   THR B  54      10.295  32.298  33.033  1.00 42.08  C
ATOM   1924  O   THR B  54      10.446  31.733  31.958  1.00 42.99  O
ATOM   1925  N   VAL B  55      10.118  33.603  33.099  1.00 41.99  N
ATOM   1926  CA  VAL B  55      10.110  34.325  31.830  1.00 40.48  C
ATOM   1927  CB  VAL B  55       9.691  35.782  31.970  1.00 40.96  C
ATOM   1928  CG1 VAL B  55      10.137  36.572  30.728  1.00 40.37  C
ATOM   1929  CG2 VAL B  55       8.171  35.864  32.183  1.00 39.21  C
ATOM   1930  C   VAL B  55      11.475  34.207  31.228  1.00 39.29  C
ATOM   1931  O   VAL B  55      11.616  33.947  30.044  1.00 38.85  O
ATOM   1932  N   THR B  56      12.494  34.358  32.053  1.00 38.72  N
ATOM   1933  CA  THR B  56      13.850  34.203  31.523  1.00 38.65  C
ATOM   1934  CB  THR B  56      14.925  34.472  32.624  1.00 38.46  C
ATOM   1935  OG1 THR B  56      14.733  35.778  33.185  1.00 38.29  O
ATOM   1936  CG2 THR B  56      16.310  34.562  32.039  1.00 36.70  C
ATOM   1937  C   THR B  56      14.002  32.808  30.873  1.00 38.37  C
ATOM   1938  O   THR B  56      14.417  32.693  29.721  1.00 38.03  O
ATOM   1939  N   LYS B  57      13.620  31.754  31.595  1.00 38.80  N
ATOM   1940  CA  LYS B  57      13.784  30.388  31.065  1.00 38.98  C
ATOM   1941  CB  LYS B  57      13.340  29.299  32.067  1.00 39.76  C
ATOM   1942  CG  LYS B  57      14.379  28.977  33.152  1.00 42.25  C
ATOM   1943  CD  LYS B  57      14.173  27.602  33.780  1.00 49.21  C
ATOM   1944  CE  LYS B  57      12.856  27.507  34.530  1.00 51.60  C
ATOM   1945  NZ  LYS B  57      12.852  26.354  35.485  1.00 54.32  N
ATOM   1946  C   LYS B  57      13.079  30.244  29.740  1.00 38.40  C
ATOM   1947  O   LYS B  57      13.704  29.905  28.756  1.00 36.27  O
ATOM   1948  N   ALA B  58      11.779  30.530  29.739  1.00 39.10  N
ATOM   1949  CA  ALA B  58      10.980  30.502  28.525  1.00 39.94  C
ATOM   1950  CB  ALA B  58       9.587  30.996  28.831  1.00 40.00  C
ATOM   1951  C   ALA B  58      11.578  31.308  27.354  1.00 40.24  C
ATOM   1952  O   ALA B  58      11.588  30.846  26.227  1.00 40.52  O
ATOM   1953  N   ALA B  59      12.077  32.507  27.611  1.00 40.78  N
ATOM   1954  CA  ALA B  59      12.519  33.346  26.502  1.00 41.82  C
ATOM   1955  CB  ALA B  59      12.795  34.775  26.992  1.00 41.74  C
```

Figure 2-37

```
ATOM   1956  C   ALA B  59      13.758  32.739  25.878  1.00 42.15  C
ATOM   1957  O   ALA B  59      13.942  32.729  24.658  1.00 41.62  O
ATOM   1958  N   ASN B  60      14.632  32.262  26.749  1.00 43.31  N
ATOM   1959  CA  ASN B  60      15.806  31.519  26.321  1.00 44.02  C
ATOM   1960  CB  ASN B  60      16.555  30.984  27.530  1.00 43.90  C
ATOM   1961  CG  ASN B  60      17.947  30.559  27.174  1.00 45.40  C
ATOM   1962  OD1 ASN B  60      18.610  29.820  27.909  1.00 49.42  O
ATOM   1963  ND2 ASN B  60      18.400  31.014  26.016  1.00 42.16  N
ATOM   1964  C   ASN B  60      15.462  30.348  25.368  1.00 44.54  C
ATOM   1965  O   ASN B  60      15.831  30.360  24.184  1.00 44.31  O
ATOM   1966  N   ALA B  61      14.743  29.350  25.883  1.00 44.76  N
ATOM   1967  CA  ALA B  61      14.364  28.182  25.074  1.00 44.75  C
ATOM   1968  CB  ALA B  61      13.708  27.115  25.962  1.00 45.21  C
ATOM   1969  C   ALA B  61      13.419  28.539  23.973  1.00 44.13  C
ATOM   1970  O   ALA B  61      13.051  27.682  23.180  1.00 44.96  O
ATOM   1971  N   LEU B  62      12.965  29.780  23.949  1.00 42.96  N
ATOM   1972  CA  LEU B  62      12.121  30.170  22.828  1.00 42.37  C
ATOM   1973  CB  LEU B  62      11.023  31.133  23.278  1.00 42.78  C
ATOM   1974  CG  LEU B  62       9.570  30.837  22.846  1.00 45.31  C
ATOM   1975  CD1 LEU B  62       9.267  29.342  22.700  1.00 47.01  C
ATOM   1976  CD2 LEU B  62       8.583  31.496  23.811  1.00 45.08  C
ATOM   1977  C   LEU B  62      12.997  30.752  21.696  1.00 41.04  C
ATOM   1978  O   LEU B  62      12.583  30.840  20.542  1.00 41.03  O
ATOM   1979  N   GLY B  63      14.219  31.138  22.033  1.00 39.64  N
ATOM   1980  CA  GLY B  63      15.115  31.687  21.042  1.00 38.30  C
ATOM   1981  C   GLY B  63      15.404  33.175  21.194  1.00 37.94  C
ATOM   1982  O   GLY B  63      16.242  33.711  20.451  1.00 37.52  O
ATOM   1983  N   VAL B  64      14.736  33.846  22.142  1.00 36.29  N
ATOM   1984  CA  VAL B  64      14.966  35.286  22.351  1.00 34.83  C
ATOM   1985  CB  VAL B  64      14.084  35.845  23.476  1.00 35.00  C
ATOM   1986  CG1 VAL B  64      14.453  37.303  23.795  1.00 34.47  C
ATOM   1987  CG2 VAL B  64      12.613  35.682  23.118  1.00 33.40  C
ATOM   1988  C   VAL B  64      16.427  35.481  22.713  1.00 33.62  C
ATOM   1989  O   VAL B  64      16.950  34.709  23.480  1.00 32.74  O
ATOM   1990  N   LYS B  65      17.083  36.496  22.160  1.00 32.55  N
ATOM   1991  CA  LYS B  65      18.520  36.733  22.434  1.00 32.33  C
ATOM   1992  CB  LYS B  65      19.225  37.229  21.179  1.00 33.09  C
ATOM   1993  CG  LYS B  65      19.486  36.094  20.208  1.00 37.27  C
ATOM   1994  CD  LYS B  65      19.675  36.591  18.822  1.00 42.98  C
ATOM   1995  CE  LYS B  65      21.133  36.832  18.515  1.00 43.49  C
ATOM   1996  NZ  LYS B  65      21.285  36.878  17.021  1.00 44.58  N
ATOM   1997  C   LYS B  65      18.876  37.631  23.600  1.00 31.22  C
ATOM   1998  O   LYS B  65      19.963  37.507  24.214  1.00 32.71  O
ATOM   1999  N   VAL B  66      17.992  38.558  23.900  1.00 29.42  N
ATOM   2000  CA  VAL B  66      18.208  39.475  24.993  1.00 27.36  C
ATOM   2001  CB  VAL B  66      18.922  40.785  24.518  1.00 27.87  C
ATOM   2002  CG1 VAL B  66      19.030  41.785  25.697  1.00 24.90  C
ATOM   2003  CG2 VAL B  66      20.319  40.470  23.861  1.00 27.53  C
ATOM   2004  C   VAL B  66      16.889  39.912  25.540  1.00 26.50  C
ATOM   2005  O   VAL B  66      15.964  40.133  24.777  1.00 26.00  O
ATOM   2006  N   ILE B  67      16.803  40.011  26.861  1.00 26.47  N
ATOM   2007  CA  ILE B  67      15.698  40.701  27.506  1.00 27.05  C
ATOM   2008  CB  ILE B  67      14.703  39.762  28.249  1.00 26.51  C
ATOM   2009  CG1 ILE B  67      15.392  38.989  29.343  1.00 27.62  C
ATOM   2010  CD1 ILE B  67      14.483  38.059  30.070  1.00 30.38  C
ATOM   2011  CG2 ILE B  67      14.068  38.760  27.301  1.00 28.36  C
ATOM   2012  C   ILE B  67      16.297  41.689  28.481  1.00 27.33  C
```

Figure 2-38

```
ATOM   2013  O   ILE B  67      17.157  41.332  29.283  1.00 27.49  O
ATOM   2014  N   THR B  68      15.825  42.937  28.426  1.00 27.80  N
ATOM   2015  CA  THR B  68      16.256  43.947  29.370  1.00 27.28  C
ATOM   2016  CB  THR B  68      16.591  45.232  28.673  1.00 27.10  C
ATOM   2017  OG1 THR B  68      17.649  45.011  27.759  1.00 25.13  O
ATOM   2018  CG2 THR B  68      17.086  46.285  29.662  1.00 23.16  C
ATOM   2019  C   THR B  68      15.034  44.180  30.206  1.00 28.79  C
ATOM   2020  O   THR B  68      14.008  44.574  29.679  1.00 28.79  O
ATOM   2021  N   VAL B  69      15.173  43.942  31.501  1.00 29.86  N
ATOM   2022  CA  VAL B  69      14.090  44.021  32.435  1.00 30.95  C
ATOM   2023  CB  VAL B  69      13.799  42.653  33.115  1.00 31.77  C
ATOM   2024  CG1 VAL B  69      13.943  41.524  32.144  1.00 29.77  C
ATOM   2025  CG2 VAL B  69      14.689  42.415  34.317  1.00 31.83  C
ATOM   2026  C   VAL B  69      14.363  45.112  33.441  1.00 32.45  C
ATOM   2027  O   VAL B  69      15.517  45.370  33.877  1.00 31.26  O
ATOM   2028  N   TYR B  70      13.281  45.794  33.790  1.00 34.21  N
ATOM   2029  CA  TYR B  70      13.382  47.024  34.565  1.00 36.27  C
ATOM   2030  CB  TYR B  70      12.989  48.188  33.650  1.00 36.64  C
ATOM   2031  CG  TYR B  70      13.046  49.602  34.156  1.00 39.29  C
ATOM   2032  CD1 TYR B  70      12.167  50.548  33.653  1.00 44.00  C
ATOM   2033  CE1 TYR B  70      12.198  51.849  34.053  1.00 43.81  C
ATOM   2034  CZ  TYR B  70      13.109  52.249  34.973  1.00 46.14  C
ATOM   2035  OH  TYR B  70      13.107  53.573  35.367  1.00 50.21  O
ATOM   2036  CE2 TYR B  70      14.000  51.345  35.498  1.00 44.82  C
ATOM   2037  CD2 TYR B  70      13.972  50.020  35.078  1.00 42.94  C
ATOM   2038  C   TYR B  70      12.474  46.847  35.746  1.00 37.46  C
ATOM   2039  O   TYR B  70      11.256  46.700  35.618  1.00 35.85  O
ATOM   2040  N   ALA B  71      13.112  46.791  36.905  1.00 39.73  N
ATOM   2041  CA  ALA B  71      12.402  46.599  38.160  1.00 42.12  C
ATOM   2042  CB  ALA B  71      13.220  45.754  39.125  1.00 41.74  C
ATOM   2043  C   ALA B  71      12.199  47.958  38.728  1.00 43.17  C
ATOM   2044  O   ALA B  71      13.207  48.692  38.668  1.00 45.48  O
ATOM   2045  OXT ALA B  71      11.081  48.177  39.164  1.00 43.30  N
ATOM   2046  N   PRO B  80       8.362  55.869  48.763  1.00 79.61  N
ATOM   2047  CA  PRO B  80       9.473  55.383  47.902  1.00 79.53  C
ATOM   2048  CB  PRO B  80      10.045  56.672  47.291  1.00 79.46  C
ATOM   2049  CG  PRO B  80       9.579  57.769  48.153  1.00 79.82  C
ATOM   2050  CD  PRO B  80       8.268  57.339  48.755  1.00 80.03  C
ATOM   2051  C   PRO B  80      10.550  54.663  48.698  1.00 79.44  C
ATOM   2052  O   PRO B  80      11.160  53.720  48.175  1.00 79.48  O
ATOM   2053  N   ASP B  81      10.789  55.110  49.931  1.00 79.07  N
ATOM   2054  CA  ASP B  81      11.788  54.477  50.784  1.00 78.59  C
ATOM   2055  CB  ASP B  81      11.615  54.839  52.280  1.00 78.56  C
ATOM   2056  CG  ASP B  81      10.145  54.946  52.717  1.00 78.95  C
ATOM   2057  OD1 ASP B  81       9.365  55.641  52.032  1.00 79.38  O
ATOM   2058  OD2 ASP B  81       9.679  54.403  53.749  1.00 78.79  O
ATOM   2059  C   ASP B  81      11.755  52.973  50.568  1.00 78.04  C
ATOM   2060  O   ASP B  81      12.725  52.385  50.110  1.00 77.79  O
ATOM   2061  N   GLN B  82      10.614  52.369  50.865  1.00 77.83  N
ATOM   2062  CA  GLN B  82      10.445  50.930  50.742  1.00 77.79  C
ATOM   2063  CB  GLN B  82       9.028  50.557  51.159  1.00 78.00  C
ATOM   2064  CG  GLN B  82       8.434  51.484  52.210  1.00 78.56  C
ATOM   2065  CD  GLN B  82       6.928  51.588  52.081  1.00 79.79  C
ATOM   2066  OE1 GLN B  82       6.394  51.552  50.969  1.00 80.41  O
ATOM   2067  NE2 GLN B  82       6.240  51.707  53.208  1.00 80.12  N
ATOM   2068  C   GLN B  82      10.708  50.444  49.319  1.00 77.33  C
ATOM   2069  O   GLN B  82      11.459  49.494  49.102  1.00 77.02  O
```

Figure 2-39

```
ATOM   2070  N   GLU B  83      10.092  51.109  48.350  1.00 76.99  N
ATOM   2071  CA  GLU B  83      10.246  50.703  46.960  1.00 76.98  C
ATOM   2072  CB  GLU B  83       9.347  51.521  46.022  1.00 77.11  C
ATOM   2073  CG  GLU B  83       8.162  50.733  45.455  1.00 78.04  C
ATOM   2074  CD  GLU B  83       7.767  49.535  46.308  1.00 78.62  C
ATOM   2075  OE1 GLU B  83       6.804  49.641  47.100  1.00 78.70  O
ATOM   2076  OE2 GLU B  83       8.420  48.478  46.182  1.00 78.48  O
ATOM   2077  C   GLU B  83      11.705  50.650  46.496  1.00 76.55  C
ATOM   2078  O   GLU B  83      12.080  49.782  45.701  1.00 76.43  O
ATOM   2079  N   VAL B  84      12.526  51.563  47.001  1.00 76.01  N
ATOM   2080  CA  VAL B  84      13.935  51.541  46.659  1.00 75.65  C
ATOM   2081  CB  VAL B  84      14.672  52.771  47.181  1.00 75.85  C
ATOM   2082  CG1 VAL B  84      16.122  52.757  46.713  1.00 75.43  C
ATOM   2083  CG2 VAL B  84      13.968  54.042  46.750  1.00 76.20  C
ATOM   2084  C   VAL B  84      14.575  50.322  47.300  1.00 75.37  C
ATOM   2085  O   VAL B  84      15.414  49.659  46.688  1.00 75.36  O
ATOM   2086  N   LYS B  85      14.171  50.024  48.532  1.00 74.72  N
ATOM   2087  CA  LYS B  85      14.764  48.914  49.263  1.00 74.35  C
ATOM   2088  CB  LYS B  85      14.174  48.783  50.667  1.00 74.55  C
ATOM   2089  CG  LYS B  85      14.852  49.628  51.730  1.00 75.78  C
ATOM   2090  CD  LYS B  85      14.566  49.063  53.127  1.00 78.72  C
ATOM   2091  CE  LYS B  85      14.244  50.155  54.141  1.00 79.99  C
ATOM   2092  NZ  LYS B  85      12.884  50.741  53.897  1.00 81.01  N
ATOM   2093  C   LYS B  85      14.609  47.606  48.503  1.00 73.54  C
ATOM   2094  O   LYS B  85      15.556  46.817  48.405  1.00 73.38  O
ATOM   2095  N   PHE B  86      13.417  47.385  47.962  1.00 72.45  N
ATOM   2096  CA  PHE B  86      13.143  46.166  47.206  1.00 71.63  C
ATOM   2097  CB  PHE B  86      11.681  46.121  46.797  1.00 71.97  C
ATOM   2098  CG  PHE B  86      10.740  46.073  47.960  1.00 73.17  C
ATOM   2099  CD1 PHE B  86       9.672  46.957  48.043  1.00 73.59  C
ATOM   2100  CE1 PHE B  86       8.795  46.915  49.110  1.00 74.60  C
ATOM   2101  CZ  PHE B  86       8.981  45.987  50.117  1.00 75.14  C
ATOM   2102  CE2 PHE B  86      10.058  45.099  50.050  1.00 75.97  C
ATOM   2103  CD2 PHE B  86      10.928  45.149  48.973  1.00 73.82  C
ATOM   2104  C   PHE B  86      14.043  46.010  45.983  1.00 70.42  C
ATOM   2105  O   PHE B  86      14.566  44.915  45.718  1.00 70.08  O
ATOM   2106  N   ILE B  87      14.230  47.115  45.266  1.00 68.64  N
ATOM   2107  CA  ILE B  87      15.061  47.131  44.076  1.00 67.40  C
ATOM   2108  CB  ILE B  87      14.888  48.470  43.326  1.00 67.30  C
ATOM   2109  CG1 ILE B  87      13.517  48.496  42.645  1.00 68.09  C
ATOM   2110  CD1 ILE B  87      13.089  49.892  42.191  1.00 69.98  C
ATOM   2111  CG2 ILE B  87      15.984  48.663  42.293  1.00 67.09  C
ATOM   2112  C   ILE B  87      16.532  46.815  44.366  1.00 66.18  C
ATOM   2113  O   ILE B  87      17.175  46.102  43.601  1.00 66.31  O
ATOM   2114  N   MET B  88      17.057  47.335  45.470  1.00 64.76  N
ATOM   2115  CA  MET B  88      18.474  47.143  45.796  1.00 63.78  C
ATOM   2116  CB  MET B  88      18.983  48.266  46.696  1.00 64.06  C
ATOM   2117  CG  MET B  88      18.936  49.638  46.053  1.00 65.66  C
ATOM   2118  SD  MET B  88      20.022  49.782  44.624  1.00 68.76  S
ATOM   2119  CE  MET B  88      18.969  50.684  43.486  1.00 67.06  C
ATOM   2120  C   MET B  88      18.747  45.790  46.445  1.00 62.68  C
ATOM   2121  O   MET B  88      19.877  45.300  46.475  1.00 62.32  O
ATOM   2122  N   ASN B  89      17.703  45.187  46.978  1.00 61.18  N
ATOM   2123  CA  ASN B  89      17.854  43.877  47.559  1.00 59.92  C
ATOM   2124  CB  ASN B  89      16.878  43.725  48.722  1.00 60.06  C
ATOM   2125  CG  ASN B  89      16.299  42.349  48.821  1.00 61.45  C
ATOM   2126  OD1 ASN B  89      15.309  42.022  48.147  1.00 63.63  O
```

Figure 2-40

```
ATOM   2127  ND2 ASN B  89      16.898  41.520  49.666  1.00 62.84   N
ATOM   2128  C   ASN B  89      17.698  42.794  46.479  1.00 58.79   C
ATOM   2129  O   ASN B  89      18.060  41.623  46.692  1.00 58.62   O
ATOM   2130  N   LEU B  90      17.205  43.201  45.302  1.00 57.39   N
ATOM   2131  CA  LEU B  90      16.950  42.260  44.200  1.00 55.73   C
ATOM   2132  CB  LEU B  90      16.222  42.897  42.995  1.00 55.89   C
ATOM   2133  CG  LEU B  90      15.648  41.883  41.976  1.00 56.59   C
ATOM   2134  CD1 LEU B  90      14.402  42.379  41.221  1.00 55.92   C
ATOM   2135  CD2 LEU B  90      16.715  41.419  40.987  1.00 55.70   C
ATOM   2136  C   LEU B  90      18.176  41.446  43.766  1.00 54.46   C
ATOM   2137  O   LEU B  90      18.136  40.242  43.829  1.00 54.15   O
ATOM   2138  N   PRO B  91      19.255  42.092  43.330  1.00 53.64   N
ATOM   2139  CA  PRO B  91      20.467  41.369  42.933  1.00 52.87   C
ATOM   2140  CB  PRO B  91      21.491  42.489  42.758  1.00 53.12   C
ATOM   2141  CG  PRO B  91      20.679  43.619  42.335  1.00 53.42   C
ATOM   2142  CD  PRO B  91      19.416  43.549  43.159  1.00 53.51   C
ATOM   2143  C   PRO B  91      20.950  40.369  43.982  1.00 52.32   C
ATOM   2144  O   PRO B  91      21.459  39.316  43.595  1.00 51.80   O
ATOM   2145  N   VAL B  92      20.778  40.665  45.270  1.00 52.18   N
ATOM   2146  CA  VAL B  92      21.233  39.762  46.335  1.00 52.61   C
ATOM   2147  CB  VAL B  92      21.229  40.459  47.705  1.00 52.70   C
ATOM   2148  CG1 VAL B  92      21.368  39.445  48.830  1.00 52.56   C
ATOM   2149  CG2 VAL B  92      22.342  41.502  47.772  1.00 52.96   C
ATOM   2150  C   VAL B  92      20.413  38.480  46.443  1.00 52.66   C
ATOM   2151  O   VAL B  92      20.956  37.366  46.439  1.00 53.01   O
ATOM   2152  N   GLU B  93      19.105  38.635  46.559  1.00 52.86   N
ATOM   2153  CA  GLU B  93      18.219  37.488  46.657  1.00 53.26   C
ATOM   2154  CB  GLU B  93      16.787  37.899  47.019  1.00 53.88   C
ATOM   2155  CG  GLU B  93      16.378  37.603  48.462  1.00 57.75   C
ATOM   2156  CD  GLU B  93      14.953  38.049  48.798  1.00 60.93   C
ATOM   2157  OE1 GLU B  93      14.065  37.173  48.954  1.00 62.20   O
ATOM   2158  OE2 GLU B  93      14.720  39.277  48.916  1.00 61.67   O
ATOM   2159  C   GLU B  93      18.195  36.744  45.348  1.00 52.96   C
ATOM   2160  O   GLU B  93      17.846  35.581  45.336  1.00 52.97   O
ATOM   2161  N   PHE B  94      18.551  37.395  44.240  1.00 52.37   N
ATOM   2162  CA  PHE B  94      18.537  36.669  42.968  1.00 52.13   C
ATOM   2163  CB  PHE B  94      18.345  37.613  41.761  1.00 51.84   C
ATOM   2164  CG  PHE B  94      17.417  37.065  40.695  1.00 48.83   C
ATOM   2165  CD1 PHE B  94      16.066  36.871  40.962  1.00 48.16   C
ATOM   2166  CE1 PHE B  94      15.191  36.356  39.975  1.00 43.91   C
ATOM   2167  CZ  PHE B  94      15.669  36.046  38.739  1.00 42.92   C
ATOM   2168  CE2 PHE B  94      17.013  36.258  38.453  1.00 42.75   C
ATOM   2169  CD2 PHE B  94      17.880  36.761  39.428  1.00 45.79   C
ATOM   2170  C   PHE B  94      19.771  35.771  42.805  1.00 52.25   C
ATOM   2171  O   PHE B  94      19.691  34.763  42.146  1.00 52.24   O
ATOM   2172  N   TYR B  95      20.895  36.133  43.422  1.00 52.77   N
ATOM   2173  CA  TYR B  95      22.122  35.350  43.335  1.00 54.30   C
ATOM   2174  CB  TYR B  95      23.388  36.210  43.436  1.00 54.82   C
ATOM   2175  CG  TYR B  95      24.674  35.396  43.351  1.00 56.28   C
ATOM   2176  CD1 TYR B  95      25.403  35.340  42.169  1.00 57.29   C
ATOM   2177  CE1 TYR B  95      26.574  34.620  42.082  1.00 60.36   C
ATOM   2178  CZ  TYR B  95      27.027  33.912  43.181  1.00 60.52   C
ATOM   2179  OH  TYR B  95      28.190  33.166  43.105  1.00 63.15   O
ATOM   2180  CE2 TYR B  95      26.319  33.952  44.365  1.00 60.04   C
ATOM   2181  CD2 TYR B  95      25.153  34.693  44.448  1.00 58.85   C
ATOM   2182  C   TYR B  95      22.125  34.316  44.439  1.00 54.70   C
ATOM   2183  O   TYR B  95      22.791  33.299  44.340  1.00 56.02   O
```

Figure 2-41

```
ATOM   2184  N   ASP B  96      21.396  34.588  45.508  1.00 54.83  N
ATOM   2185  CA  ASP B  96      21.279  33.633  46.588  1.00 54.79  C
ATOM   2186  CB  ASP B  96      20.726  34.291  47.870  1.00 55.36  C
ATOM   2187  CG  ASP B  96      21.820  34.824  48.793  1.00 56.72  C
ATOM   2188  OD1 ASP B  96      22.954  35.065  48.322  1.00 58.79  O
ATOM   2189  OD2 ASP B  96      21.634  35.036  50.016  1.00 57.90  O
ATOM   2190  C   ASP B  96      20.307  32.563  46.135  1.00 54.01  C
ATOM   2191  O   ASP B  96      20.461  31.404  46.483  1.00 54.92  O
ATOM   2192  N   ASN B  97      19.308  32.927  45.339  1.00 52.23  N
ATOM   2193  CA  ASN B  97      18.281  31.934  45.036  1.00 50.91  C
ATOM   2194  CB  ASN B  97      16.931  32.333  45.671  1.00 51.59  C
ATOM   2195  CG  ASN B  97      17.033  32.627  47.183  1.00 53.56  C
ATOM   2196  OD1 ASN B  97      16.446  33.612  47.677  1.00 54.64  O
ATOM   2197  ND2 ASN B  97      17.762  31.777  47.916  1.00 52.10  N
ATOM   2198  C   ASN B  97      18.026  31.503  43.588  1.00 49.57  C
ATOM   2199  O   ASN B  97      17.560  30.414  43.354  1.00 48.86  O
ATOM   2200  N   TYR B  98      18.308  32.361  42.619  1.00 48.00  N
ATOM   2201  CA  TYR B  98      17.900  32.075  41.245  1.00 45.81  C
ATOM   2202  CB  TYR B  98      16.861  33.107  40.779  1.00 45.88  C
ATOM   2203  CG  TYR B  98      15.578  33.022  41.536  1.00 45.77  C
ATOM   2204  CD1 TYR B  98      15.299  33.910  42.579  1.00 44.75  C
ATOM   2205  CE1 TYR B  98      14.116  33.821  43.298  1.00 45.54  C
ATOM   2206  CZ  TYR B  98      13.191  32.839  42.979  1.00 45.07  C
ATOM   2207  OH  TYR B  98      12.017  32.759  43.692  1.00 46.29  O
ATOM   2208  CE2 TYR B  98      13.433  31.957  41.946  1.00 46.43  C
ATOM   2209  CD2 TYR B  98      14.634  32.044  41.228  1.00 46.22  C
ATOM   2210  C   TYR B  98      18.998  31.952  40.190  1.00 44.30  C
ATOM   2211  O   TYR B  98      18.821  31.251  39.207  1.00 44.10  O
ATOM   2212  N   VAL B  99      20.102  32.657  40.387  1.00 42.52  N
ATOM   2213  CA  VAL B  99      21.208  32.661  39.446  1.00 40.95  C
ATOM   2214  CB  VAL B  99      22.299  33.683  39.898  1.00 41.21  C
ATOM   2215  CG1 VAL B  99      23.590  33.541  39.099  1.00 39.76  C
ATOM   2216  CG2 VAL B  99      21.766  35.131  39.813  1.00 40.02  C
ATOM   2217  C   VAL B  99      21.807  31.268  39.078  1.00 40.68  C
ATOM   2218  O   VAL B  99      22.034  30.989  37.915  1.00 40.68  O
ATOM   2219  N   PRO B 100      22.097  30.395  40.027  1.00 40.26  N
ATOM   2220  CA  PRO B 100      22.672  29.101  39.649  1.00 40.19  C
ATOM   2221  CB  PRO B 100      22.724  28.339  40.979  1.00 40.54  C
ATOM   2222  CG  PRO B 100      22.769  29.413  42.064  1.00 41.24  C
ATOM   2223  CD  PRO B 100      21.988  30.549  41.489  1.00 40.37  C
ATOM   2224  C   PRO B 100      21.834  28.326  38.647  1.00 39.24  C
ATOM   2225  O   PRO B 100      22.398  27.702  37.747  1.00 38.09  O
ATOM   2226  N   GLU B 101      20.515  28.349  38.798  1.00 39.20  N
ATOM   2227  CA  GLU B 101      19.678  27.613  37.870  1.00 38.35  C
ATOM   2228  CB  GLU B 101      18.236  27.464  38.357  1.00 39.20  C
ATOM   2229  CG  GLU B 101      17.408  26.680  37.345  1.00 41.41  C
ATOM   2230  CD  GLU B 101      15.927  26.729  37.602  1.00 46.21  C
ATOM   2231  OE1 GLU B 101      15.518  27.244  38.667  1.00 48.44  O
ATOM   2232  OE2 GLU B 101      15.170  26.240  36.734  1.00 48.45  O
ATOM   2233  C   GLU B 101      19.720  28.303  36.506  1.00 38.08  C
ATOM   2234  O   GLU B 101      19.658  27.651  35.441  1.00 37.81  O
ATOM   2235  N   LEU B 102      19.836  29.628  36.519  1.00 37.26  N
ATOM   2236  CA  LEU B 102      19.939  30.340  35.246  1.00 37.11  C
ATOM   2237  CB  LEU B 102      19.661  31.845  35.375  1.00 36.21  C
ATOM   2238  CG  LEU B 102      18.194  32.250  35.600  1.00 37.27  C
ATOM   2239  CD1 LEU B 102      18.039  33.773  35.674  1.00 37.92  C
ATOM   2240  CD2 LEU B 102      17.258  31.698  34.572  1.00 37.50  C
```

Figure 2-42

```
ATOM   2241  C   LEU B 102      21.311  30.076  34.642  1.00 36.04   C
ATOM   2242  O   LEU B 102      21.442  30.001  33.431  1.00 34.61   O
ATOM   2243  N   HIS B 103      22.328  29.932  35.484  1.00 36.70   N
ATOM   2244  CA  HIS B 103      23.651  29.629  34.961  1.00 37.95   C
ATOM   2245  CB  HIS B 103      24.719  29.668  36.044  1.00 38.06   C
ATOM   2246  CG  HIS B 103      26.054  29.135  35.609  1.00 40.51   C
ATOM   2247  ND1 HIS B 103      26.604  28.002  36.168  1.00 42.69   N
ATOM   2248  CE1 HIS B 103      27.790  27.778  35.634  1.00 40.04   C
ATOM   2249  NE2 HIS B 103      28.040  28.737  34.762  1.00 37.18   N
ATOM   2250  CD2 HIS B 103      26.968  29.597  34.721  1.00 40.30   C
ATOM   2251  C   HIS B 103      23.628  28.259  34.329  1.00 37.84   C
ATOM   2252  O   HIS B 103      24.253  28.030  33.292  1.00 38.57   O
ATOM   2253  N   ALA B 104      22.902  27.341  34.955  1.00 37.37   N
ATOM   2254  CA  ALA B 104      22.779  26.008  34.387  1.00 38.02   C
ATOM   2255  CB  ALA B 104      22.191  25.056  35.409  1.00 38.12   C
ATOM   2256  C   ALA B 104      21.982  25.987  33.070  1.00 38.06   C
ATOM   2257  O   ALA B 104      21.801  24.956  32.471  1.00 37.18   O
ATOM   2258  N   ASN B 105      21.537  27.148  32.613  1.00 38.90   N
ATOM   2259  CA  ASN B 105      20.769  27.253  31.372  1.00 39.08   C
ATOM   2260  CB  ASN B 105      19.433  27.950  31.625  1.00 39.56   C
ATOM   2261  CG  ASN B 105      18.367  27.010  32.135  1.00 41.89   C
ATOM   2262  OD1 ASN B 105      17.390  26.715  31.433  1.00 44.45   O
ATOM   2263  ND2 ASN B 105      18.522  26.551  33.372  1.00 43.77   N
ATOM   2264  C   ASN B 105      21.514  28.033  30.323  1.00 38.21   C
ATOM   2265  O   ASN B 105      20.909  28.496  29.346  1.00 39.77   O
ATOM   2266  N   ASN B 106      22.824  28.172  30.475  1.00 37.56   N
ATOM   2267  CA  ASN B 106      23.588  28.934  29.469  1.00 36.65   C
ATOM   2268  CB  ASN B 106      23.727  28.221  28.101  1.00 35.59   C
ATOM   2269  CG  ASN B 106      25.052  28.540  27.428  1.00 34.72   C
ATOM   2270  OD1 ASN B 106      26.029  28.875  28.111  1.00 37.87   O
ATOM   2271  ND2 ASN B 106      25.092  28.464  26.023  1.00 36.92   N
ATOM   2272  C   ASN B 106      23.003  30.326  29.294  1.00 35.12   C
ATOM   2273  O   ASN B 106      22.955  30.827  28.191  1.00 35.48   O
ATOM   2274  N   VAL B 107      22.524  30.920  30.384  1.00 34.36   N
ATOM   2275  CA  VAL B 107      22.063  32.316  30.396  1.00 33.07   C
ATOM   2276  CB  VAL B 107      20.836  32.481  31.260  1.00 33.16   C
ATOM   2277  CG1 VAL B 107      20.457  33.994  31.342  1.00 34.21   C
ATOM   2278  CG2 VAL B 107      19.712  31.633  30.719  1.00 32.72   C
ATOM   2279  C   VAL B 107      23.138  33.282  30.952  1.00 32.21   C
ATOM   2280  O   VAL B 107      23.676  33.045  32.015  1.00 30.89   O
ATOM   2281  N   LYS B 108      23.422  34.350  30.211  1.00 31.64   N
ATOM   2282  CA  LYS B 108      24.368  35.382  30.584  1.00 32.38   C
ATOM   2283  CB  LYS B 108      25.069  35.907  29.315  1.00 32.24   C
ATOM   2284  CG  LYS B 108      26.343  36.804  29.481  1.00 31.20   C
ATOM   2285  CD  LYS B 108      27.105  36.715  28.173  1.00 31.10   C
ATOM   2286  CE  LYS B 108      28.001  37.849  27.789  1.00 32.76   C
ATOM   2287  NZ  LYS B 108      28.932  38.226  28.846  1.00 34.14   N
ATOM   2288  C   LYS B 108      23.605  36.528  31.267  1.00 33.46   C
ATOM   2289  O   LYS B 108      22.595  37.024  30.763  1.00 33.95   O
ATOM   2290  N   ILE B 109      24.100  36.958  32.406  1.00 33.80   N
ATOM   2291  CA  ILE B 109      23.482  38.014  33.147  1.00 34.09   C
ATOM   2292  CB  ILE B 109      23.328  37.604  34.622  1.00 34.37   C
ATOM   2293  CG1 ILE B 109      22.542  36.300  34.748  1.00 33.57   C
ATOM   2294  CD1 ILE B 109      22.168  35.953  36.158  1.00 31.03   C
ATOM   2295  CG2 ILE B 109      22.617  38.726  35.395  1.00 36.00   C
ATOM   2296  C   ILE B 109      24.385  39.225  33.091  1.00 34.75   C
ATOM   2297  O   ILE B 109      25.621  39.123  33.258  1.00 32.79   O
```

Figure 2-43

```
ATOM   2298  N   GLN B 110      23.782  40.372  32.811  1.00 35.64   N
ATOM   2299  CA  GLN B 110      24.516  41.645  32.895  1.00 37.56   C
ATOM   2300  CB  GLN B 110      25.197  42.078  31.584  1.00 37.99   C
ATOM   2301  CG  GLN B 110      24.773  41.386  30.340  1.00 44.09   C
ATOM   2302  CD  GLN B 110      25.852  41.403  29.232  1.00 51.12   C
ATOM   2303  OE1 GLN B 110      25.760  40.638  28.265  1.00 55.59   O
ATOM   2304  NE2 GLN B 110      26.841  42.274  29.363  1.00 51.18   N
ATOM   2305  C   GLN B 110      23.617  42.736  33.425  1.00 36.92   C
ATOM   2306  O   GLN B 110      22.434  42.535  33.606  1.00 35.21   O
ATOM   2307  N   MET B 111      24.187  43.895  33.680  1.00 38.04   N
ATOM   2308  CA  MET B 111      23.356  44.978  34.176  1.00 39.79   C
ATOM   2309  CB  MET B 111      23.362  45.002  35.699  1.00 39.71   C
ATOM   2310  CG  MET B 111      24.632  45.517  36.325  1.00 44.40   C
ATOM   2311  SD  MET B 111      24.552  47.344  36.623  1.00 55.55   S
ATOM   2312  CE  MET B 111      23.305  47.427  37.955  1.00 51.09   C
ATOM   2313  C   MET B 111      23.654  46.339  33.544  1.00 39.72   C
ATOM   2314  O   MET B 111      24.747  46.600  33.040  1.00 40.36   O
ATOM   2315  N   ILE B 112      22.642  47.182  33.496  1.00 40.36   N
ATOM   2316  CA  ILE B 112      22.822  48.516  32.985  1.00 40.57   C
ATOM   2317  CB  ILE B 112      22.121  48.727  31.626  1.00 40.84   C
ATOM   2318  CG1 ILE B 112      20.610  48.668  31.753  1.00 39.98   C
ATOM   2319  CD1 ILE B 112      19.961  49.183  30.506  1.00 38.12   C
ATOM   2320  CG2 ILE B 112      22.583  47.721  30.571  1.00 39.89   C
ATOM   2321  C   ILE B 112      22.289  49.461  34.030  1.00 41.29   C
ATOM   2322  O   ILE B 112      21.284  49.176  34.695  1.00 39.85   O
ATOM   2323  N   GLY B 113      22.985  50.579  34.165  1.00 42.75   N
ATOM   2324  CA  GLY B 113      22.651  51.604  35.132  1.00 46.01   C
ATOM   2325  C   GLY B 113      23.884  52.094  35.858  1.00 48.44   C
ATOM   2326  O   GLY B 113      25.016  51.747  35.503  1.00 47.59   O
ATOM   2327  N   GLU B 114      23.685  52.923  36.875  1.00 50.88   N
ATOM   2328  CA  GLU B 114      24.833  53.405  37.624  1.00 53.27   C
ATOM   2329  CB  GLU B 114      24.840  54.938  37.793  1.00 53.34   C
ATOM   2330  CG  GLU B 114      23.661  55.683  37.195  1.00 56.84   C
ATOM   2331  CD  GLU B 114      23.939  57.176  36.955  1.00 63.35   C
ATOM   2332  OE1 GLU B 114      22.961  57.946  36.702  1.00 66.30   O
ATOM   2333  OE2 GLU B 114      25.126  57.598  37.009  1.00 63.70   O
ATOM   2334  C   GLU B 114      25.018  52.626  38.927  1.00 54.27   C
ATOM   2335  O   GLU B 114      24.122  52.545  39.752  1.00 53.90   O
ATOM   2336  N   THR B 115      26.192  52.020  39.066  1.00 56.30   N
ATOM   2337  CA  THR B 115      26.524  51.162  40.204  1.00 58.76   C
ATOM   2338  CB  THR B 115      27.628  50.199  39.786  1.00 58.64   C
ATOM   2339  OG1 THR B 115      28.835  50.938  39.544  1.00 58.75   O
ATOM   2340  CG2 THR B 115      27.300  49.581  38.413  1.00 59.15   C
ATOM   2341  C   THR B 115      27.007  51.957  41.404  1.00 60.20   C
ATOM   2342  O   THR B 115      26.536  51.780  42.526  1.00 60.22   O
ATOM   2343  N   ASP B 116      27.976  52.820  41.121  1.00 62.27   N
ATOM   2344  CA  ASP B 116      28.621  53.713  42.073  1.00 63.80   C
ATOM   2345  CB  ASP B 116      28.869  55.070  41.392  1.00 65.00   C
ATOM   2346  CG  ASP B 116      29.423  54.916  39.950  1.00 67.44   C
ATOM   2347  OD1 ASP B 116      30.548  54.384  39.798  1.00 68.83   O
ATOM   2348  OD2 ASP B 116      28.798  55.279  38.913  1.00 70.80   O
ATOM   2349  C   ASP B 116      27.898  53.868  43.423  1.00 63.92   C
ATOM   2350  O   ASP B 116      28.522  53.744  44.481  1.00 65.11   O
ATOM   2351  N   ALA B 117      26.590  54.102  43.394  1.00 63.39   N
ATOM   2352  CA  ALA B 117      25.832  54.210  44.638  1.00 62.80   C
ATOM   2353  CB  ALA B 117      25.090  55.556  44.712  1.00 63.33   C
ATOM   2354  C   ALA B 117      24.868  53.036  44.898  1.00 62.17   C
```

Figure 2-44

```
ATOM   2355  O   ALA B 117      23.681  53.257  45.170  1.00 62.60  O
ATOM   2356  N   LEU B 118      25.353  51.802  44.796  1.00 60.32  N
ATOM   2357  CA  LEU B 118      24.526  50.682  45.175  1.00 58.58  C
ATOM   2358  CB  LEU B 118      24.645  49.538  44.180  1.00 58.59  C
ATOM   2359  CG  LEU B 118      23.992  49.696  42.809  1.00 58.97  C
ATOM   2360  CD1 LEU B 118      24.140  48.412  42.024  1.00 58.87  C
ATOM   2361  CD2 LEU B 118      22.533  50.068  42.952  1.00 58.19  C
ATOM   2362  C   LEU B 118      25.109  50.291  46.495  1.00 57.25  C
ATOM   2363  O   LEU B 118      26.277  50.538  46.751  1.00 57.19  O
ATOM   2364  N   PRO B 119      24.297  49.727  47.360  1.00 56.28  N
ATOM   2365  CA  PRO B 119      24.796  49.216  48.633  1.00 55.61  C
ATOM   2366  CB  PRO B 119      23.586  48.495  49.220  1.00 55.64  C
ATOM   2367  CG  PRO B 119      22.403  49.096  48.542  1.00 56.05  C
ATOM   2368  CD  PRO B 119      22.847  49.547  47.189  1.00 56.40  C
ATOM   2369  C   PRO B 119      25.883  48.204  48.308  1.00 55.20  C
ATOM   2370  O   PRO B 119      25.813  47.558  47.262  1.00 54.93  O
ATOM   2371  N   ALA B 120      26.864  48.051  49.182  1.00 54.37  N
ATOM   2372  CA  ALA B 120      27.937  47.107  48.912  1.00 53.79  C
ATOM   2373  CB  ALA B 120      28.873  46.988  50.120  1.00 53.82  C
ATOM   2374  C   ALA B 120      27.394  45.737  48.492  1.00 52.78  C
ATOM   2375  O   ALA B 120      27.552  45.299  47.352  1.00 52.31  O
ATOM   2376  N   ALA B 121      26.747  45.071  49.428  1.00 51.60  N
ATOM   2377  CA  ALA B 121      26.180  43.758  49.184  1.00 50.15  C
ATOM   2378  CB  ALA B 121      25.139  43.438  50.263  1.00 50.38  C
ATOM   2379  C   ALA B 121      25.564  43.658  47.802  1.00 48.91  C
ATOM   2380  O   ALA B 121      25.461  42.581  47.241  1.00 48.90  O
ATOM   2381  N   THR B 122      25.164  44.787  47.244  1.00 47.99  N
ATOM   2382  CA  THR B 122      24.497  44.782  45.946  1.00 47.28  C
ATOM   2383  CB  THR B 122      23.502  45.953  45.839  1.00 47.44  C
ATOM   2384  OG1 THR B 122      22.457  45.755  46.788  1.00 47.92  O
ATOM   2385  CG2 THR B 122      22.760  45.902  44.517  1.00 47.45  C
ATOM   2386  C   THR B 122      25.473  44.817  44.788  1.00 46.22  C
ATOM   2387  O   THR B 122      25.274  44.150  43.785  1.00 46.09  O
ATOM   2388  N   PHE B 123      26.495  45.656  44.895  1.00 45.38  N
ATOM   2389  CA  PHE B 123      27.542  45.653  43.900  1.00 44.82  C
ATOM   2390  CB  PHE B 123      28.668  46.598  44.293  1.00 45.07  C
ATOM   2391  CG  PHE B 123      29.622  46.867  43.187  1.00 45.50  C
ATOM   2392  CD1 PHE B 123      30.922  46.403  43.245  1.00 48.15  C
ATOM   2393  CE1 PHE B 123      31.789  46.617  42.200  1.00 46.13  C
ATOM   2394  CZ  PHE B 123      31.358  47.282  41.090  1.00 46.52  C
ATOM   2395  CE2 PHE B 123      30.057  47.731  41.024  1.00 47.36  C
ATOM   2396  CD2 PHE B 123      29.198  47.509  42.059  1.00 45.44  C
ATOM   2397  C   PHE B 123      28.082  44.218  43.865  1.00 44.58  C
ATOM   2398  O   PHE B 123      28.311  43.650  42.795  1.00 44.49  O
ATOM   2399  N   GLU B 124      28.234  43.616  45.048  1.00 43.92  N
ATOM   2400  CA  GLU B 124      28.829  42.286  45.199  1.00 43.96  C
ATOM   2401  CB  GLU B 124      29.054  41.978  46.681  1.00 44.41  C
ATOM   2402  CG  GLU B 124      30.100  42.857  47.345  1.00 46.55  C
ATOM   2403  CD  GLU B 124      30.360  42.486  48.813  1.00 50.71  C
ATOM   2404  OE1 GLU B 124      29.644  41.598  49.370  1.00 51.07  O
ATOM   2405  OE2 GLU B 124      31.280  43.099  49.420  1.00 50.99  O
ATOM   2406  C   GLU B 124      28.035  41.153  44.541  1.00 43.00  C
ATOM   2407  O   GLU B 124      28.550  40.425  43.693  1.00 42.41  O
ATOM   2408  N   ALA B 125      26.780  41.021  44.949  1.00 42.67  N
ATOM   2409  CA  ALA B 125      25.900  40.051  44.349  1.00 41.85  C
ATOM   2410  CB  ALA B 125      24.492  40.144  44.932  1.00 41.12  C
ATOM   2411  C   ALA B 125      25.864  40.232  42.843  1.00 41.59  C
```

Figure 2-45

```
ATOM   2412  O   ALA B 125      26.106  39.278  42.105  1.00 41.94   O
ATOM   2413  N   LEU B 126      25.598  41.421  42.348  1.00 40.73   N
ATOM   2414  CA  LEU B 126      25.424  41.473  40.920  1.00 41.09   C
ATOM   2415  CB  LEU B 126      24.617  42.690  40.434  1.00 41.62   C
ATOM   2416  CG  LEU B 126      25.147  44.072  40.701  1.00 43.21   C
ATOM   2417  CD1 LEU B 126      26.306  44.303  39.717  1.00 47.83   C
ATOM   2418  CD2 LEU B 126      24.040  45.077  40.514  1.00 43.60   C
ATOM   2419  C   LEU B 126      26.743  41.215  40.192  1.00 40.77   C
ATOM   2420  O   LEU B 126      26.746  40.610  39.114  1.00 39.90   O
ATOM   2421  N   THR B 127      27.844  41.670  40.799  1.00 39.58   N
ATOM   2422  CA  THR B 127      29.169  41.378  40.293  1.00 39.50   C
ATOM   2423  CB  THR B 127      30.254  41.931  41.212  1.00 39.95   C
ATOM   2424  OG1 THR B 127      30.502  43.307  40.935  1.00 40.20   O
ATOM   2425  CG2 THR B 127      31.577  41.284  40.845  1.00 41.26   C
ATOM   2426  C   THR B 127      29.385  39.864  40.236  1.00 39.37   C
ATOM   2427  O   THR B 127      29.924  39.354  39.258  1.00 38.55   O
ATOM   2428  N   LYS B 128      28.992  39.161  41.308  1.00 38.80   N
ATOM   2429  CA  LYS B 128      29.107  37.699  41.354  1.00 38.93   C
ATOM   2430  CB  LYS B 128      28.570  37.139  42.672  1.00 38.95   C
ATOM   2431  CG  LYS B 128      29.572  36.908  43.772  1.00 43.14   C
ATOM   2432  CD  LYS B 128      28.817  36.555  45.036  1.00 47.81   C
ATOM   2433  CE  LYS B 128      29.340  37.316  46.233  1.00 50.48   C
ATOM   2434  NZ  LYS B 128      28.725  36.770  47.486  1.00 54.23   N
ATOM   2435  C   LYS B 128      28.287  37.056  40.253  1.00 37.65   C
ATOM   2436  O   LYS B 128      28.693  36.048  39.676  1.00 37.16   O
ATOM   2437  N   ALA B 129      27.100  37.601  39.991  1.00 36.14   N
ATOM   2438  CA  ALA B 129      26.259  36.993  38.960  1.00 34.97   C
ATOM   2439  CB  ALA B 129      24.836  37.476  39.053  1.00 33.12   C
ATOM   2440  C   ALA B 129      26.842  37.194  37.552  1.00 33.73   C
ATOM   2441  O   ALA B 129      26.687  36.376  36.663  1.00 33.26   O
ATOM   2442  N   GLU B 130      27.541  38.285  37.361  1.00 33.48   N
ATOM   2443  CA  GLU B 130      28.051  38.565  36.052  1.00 33.82   C
ATOM   2444  CB  GLU B 130      28.494  40.034  35.929  1.00 33.93   C
ATOM   2445  CG  GLU B 130      27.388  41.041  35.646  1.00 37.35   C
ATOM   2446  CD  GLU B 130      27.875  42.498  35.773  1.00 41.79   C
ATOM   2447  OE1 GLU B 130      28.868  42.757  36.485  1.00 42.79   O
ATOM   2448  OE2 GLU B 130      27.278  43.386  35.146  1.00 42.77   O
ATOM   2449  C   GLU B 130      29.212  37.644  35.767  1.00 33.47   C
ATOM   2450  O   GLU B 130      29.321  37.080  34.658  1.00 32.54   O
ATOM   2451  N   GLU B 131      30.071  37.501  36.769  1.00 32.52   N
ATOM   2452  CA  GLU B 131      31.313  36.733  36.612  1.00 33.67   C
ATOM   2453  CB  GLU B 131      32.220  36.908  37.824  1.00 33.59   C
ATOM   2454  CG  GLU B 131      33.075  38.135  37.765  1.00 36.73   C
ATOM   2455  CD  GLU B 131      33.529  38.529  39.134  1.00 42.87   C
ATOM   2456  OE1 GLU B 131      33.095  37.853  40.093  1.00 46.41   O
ATOM   2457  OE2 GLU B 131      34.295  39.504  39.258  1.00 46.22   O
ATOM   2458  C   GLU B 131      31.029  35.265  36.460  1.00 33.35   C
ATOM   2459  O   GLU B 131      31.738  34.542  35.760  1.00 32.93   O
ATOM   2460  N   LEU B 132      29.985  34.832  37.140  1.00 32.35   N
ATOM   2461  CA  LEU B 132      29.621  33.461  37.070  1.00 32.08   C
ATOM   2462  CB  LEU B 132      28.476  33.185  38.025  1.00 31.80   C
ATOM   2463  CG  LEU B 132      27.777  31.851  37.892  1.00 32.57   C
ATOM   2464  CD1 LEU B 132      28.776  30.735  38.166  1.00 34.70   C
ATOM   2465  CD2 LEU B 132      26.654  31.795  38.876  1.00 31.68   C
ATOM   2466  C   LEU B 132      29.196  33.147  35.656  1.00 32.10   C
ATOM   2467  O   LEU B 132      29.388  32.040  35.210  1.00 31.30   O
ATOM   2468  N   THR B 133      28.675  34.136  34.928  1.00 31.67   N
```

Figure 2-46

```
ATOM   2469  CA  THR B 133      28.022  33.851  33.651  1.00 30.54  C
ATOM   2470  CB  THR B 133      26.538  34.348  33.682  1.00 31.82  C
ATOM   2471  OG1 THR B 133      26.489  35.710  34.168  1.00 30.87  O
ATOM   2472  CG2 THR B 133      25.720  33.579  34.722  1.00 30.99  C
ATOM   2473  C   THR B 133      28.649  34.408  32.423  1.00 29.83  C
ATOM   2474  O   THR B 133      28.116  34.245  31.348  1.00 29.02  O
ATOM   2475  N   LYS B 134      29.758  35.107  32.546  1.00 30.51  N
ATOM   2476  CA  LYS B 134      30.275  35.782  31.358  1.00 31.38  C
ATOM   2477  CB  LYS B 134      31.461  36.657  31.736  1.00 31.83  C
ATOM   2478  CG  LYS B 134      32.610  35.866  32.347  1.00 35.39  C
ATOM   2479  CD  LYS B 134      33.904  36.688  32.410  1.00 38.00  C
ATOM   2480  CE  LYS B 134      35.136  35.767  32.616  1.00 40.06  C
ATOM   2481  NZ  LYS B 134      36.454  36.497  32.501  1.00 43.22  N
ATOM   2482  C   LYS B 134      30.633  34.898  30.133  1.00 31.61  C
ATOM   2483  O   LYS B 134      30.867  35.434  29.040  1.00 32.36  O
ATOM   2484  N   ASN B 135      30.707  33.578  30.281  1.00 30.06  N
ATOM   2485  CA  ASN B 135      31.023  32.766  29.106  1.00 29.32  C
ATOM   2486  CB  ASN B 135      32.005  31.627  29.398  1.00 29.27  C
ATOM   2487  CG  ASN B 135      33.160  32.052  30.240  1.00 28.01  C
ATOM   2488  OD1 ASN B 135      33.943  32.880  29.832  1.00 29.70  O
ATOM   2489  ND2 ASN B 135      33.300  31.437  31.418  1.00 28.33  N
ATOM   2490  C   ASN B 135      29.794  32.123  28.558  1.00 28.67  C
ATOM   2491  O   ASN B 135      29.841  31.521  27.483  1.00 28.05  O
ATOM   2492  N   ASN B 136      28.694  32.207  29.290  1.00 28.32  N
ATOM   2493  CA  ASN B 136      27.484  31.603  28.785  1.00 30.33  C
ATOM   2494  CB  ASN B 136      26.399  31.660  29.842  1.00 31.15  C
ATOM   2495  CG  ASN B 136      26.845  30.966  31.127  1.00 33.75  C
ATOM   2496  OD1 ASN B 136      26.038  30.599  31.987  1.00 39.06  O
ATOM   2497  ND2 ASN B 136      28.139  30.786  31.255  1.00 32.22  N
ATOM   2498  C   ASN B 136      27.086  32.218  27.421  1.00 31.29  C
ATOM   2499  O   ASN B 136      27.376  33.411  27.137  1.00 29.96  O
ATOM   2500  N   THR B 137      26.494  31.389  26.566  1.00 31.59  N
ATOM   2501  CA  THR B 137      26.249  31.806  25.186  1.00 31.74  C
ATOM   2502  CB  THR B 137      27.100  30.929  24.163  1.00 32.03  C
ATOM   2503  OG1 THR B 137      26.752  29.551  24.277  1.00 31.28  O
ATOM   2504  CG2 THR B 137      28.541  30.929  24.477  1.00 29.88  C
ATOM   2505  C   THR B 137      24.773  31.711  24.842  1.00 31.10  C
ATOM   2506  O   THR B 137      24.394  31.746  23.684  1.00 31.08  O
ATOM   2507  N   GLY B 138      23.929  31.542  25.840  1.00 31.30  N
ATOM   2508  CA  GLY B 138      22.496  31.522  25.557  1.00 32.11  C
ATOM   2509  C   GLY B 138      21.949  32.965  25.647  1.00 31.99  C
ATOM   2510  O   GLY B 138      22.693  33.969  25.545  1.00 31.29  O
ATOM   2511  N   LEU B 139      20.650  33.068  25.845  1.00 31.75  N
ATOM   2512  CA  LEU B 139      19.999  34.372  26.091  1.00 32.55  C
ATOM   2513  CB  LEU B 139      18.595  34.108  26.602  1.00 31.53  C
ATOM   2514  CG  LEU B 139      17.844  35.235  27.261  1.00 33.59  C
ATOM   2515  CD1 LEU B 139      17.229  36.058  26.183  1.00 32.07  C
ATOM   2516  CD2 LEU B 139      16.761  34.669  28.211  1.00 33.88  C
ATOM   2517  C   LEU B 139      20.717  35.270  27.119  1.00 32.72  C
ATOM   2518  O   LEU B 139      21.125  34.818  28.182  1.00 32.85  O
ATOM   2519  N   ILE B 140      20.822  36.558  26.825  1.00 33.58  N
ATOM   2520  CA  ILE B 140      21.446  37.472  27.751  1.00 33.39  C
ATOM   2521  CB  ILE B 140      22.218  38.490  26.970  1.00 33.69  C
ATOM   2522  CG1 ILE B 140      23.367  37.827  26.243  1.00 31.10  C
ATOM   2523  CD1 ILE B 140      24.183  38.837  25.493  1.00 36.90  C
ATOM   2524  CG2 ILE B 140      22.677  39.625  27.862  1.00 33.07  C
ATOM   2525  C   ILE B 140      20.386  38.178  28.554  1.00 34.38  C
```

Figure 2-47

```
ATOM   2526  O   ILE B 140      19.558  38.863  27.976  1.00 36.08   O
ATOM   2527  N   LEU B 141      20.399  38.020  29.878  1.00 34.13   N
ATOM   2528  CA  LEU B 141      19.424  38.670  30.754  1.00 34.18   C
ATOM   2529  CB  LEU B 141      18.954  37.709  31.852  1.00 33.87   C
ATOM   2530  CG  LEU B 141      18.202  38.254  33.059  1.00 34.61   C
ATOM   2531  CD1 LEU B 141      16.838  38.863  32.668  1.00 35.97   C
ATOM   2532  CD2 LEU B 141      18.026  37.189  34.125  1.00 30.75   C
ATOM   2533  C   LEU B 141      19.972  39.995  31.355  1.00 34.32   C
ATOM   2534  O   LEU B 141      20.874  39.980  32.147  1.00 34.29   O
ATOM   2535  N   ASN B 142      19.398  41.121  30.951  1.00 34.35   N
ATOM   2536  CA  ASN B 142      19.816  42.437  31.390  1.00 35.82   C
ATOM   2537  CB  ASN B 142      19.809  43.348  30.188  1.00 37.16   C
ATOM   2538  CG  ASN B 142      21.165  43.756  29.822  1.00 40.98   C
ATOM   2539  OD1 ASN B 142      21.791  44.585  30.514  1.00 42.04   O
ATOM   2540  ND2 ASN B 142      21.691  43.130  28.761  1.00 43.88   N
ATOM   2541  C   ASN B 142      19.016  43.159  32.443  1.00 35.03   C
ATOM   2542  O   ASN B 142      17.897  43.623  32.155  1.00 35.35   O
ATOM   2543  N   PHE B 143      19.565  43.281  33.640  1.00 34.46   N
ATOM   2544  CA  PHE B 143      18.890  44.051  34.692  1.00 35.28   C
ATOM   2545  CB  PHE B 143      19.388  43.683  36.071  1.00 35.33   C
ATOM   2546  CG  PHE B 143      18.845  42.397  36.571  1.00 36.34   C
ATOM   2547  CD1 PHE B 143      17.705  42.380  37.358  1.00 33.28   C
ATOM   2548  CE1 PHE B 143      17.199  41.179  37.831  1.00 37.07   C
ATOM   2549  CZ  PHE B 143      17.850  39.957  37.522  1.00 34.86   C
ATOM   2550  CE2 PHE B 143      18.984  39.964  36.736  1.00 35.18   C
ATOM   2551  CD2 PHE B 143      19.492  41.191  36.262  1.00 35.33   C
ATOM   2552  C   PHE B 143      19.137  45.524  34.557  1.00 35.06   C
ATOM   2553  O   PHE B 143      20.269  45.977  34.513  1.00 35.09   O
ATOM   2554  N   ALA B 144      18.063  46.270  34.486  1.00 35.18   N
ATOM   2555  CA  ALA B 144      18.156  47.700  34.489  1.00 35.26   C
ATOM   2556  CB  ALA B 144      17.141  48.284  33.526  1.00 34.89   C
ATOM   2557  C   ALA B 144      17.868  48.111  35.926  1.00 35.60   C
ATOM   2558  O   ALA B 144      16.732  48.134  36.357  1.00 36.05   O
ATOM   2559  N   LEU B 145      18.896  48.454  36.674  1.00 36.21   N
ATOM   2560  CA  LEU B 145      18.708  48.756  38.077  1.00 37.04   C
ATOM   2561  CB  LEU B 145      19.360  47.703  38.984  1.00 38.04   C
ATOM   2562  CG  LEU B 145      18.384  46.870  39.782  1.00 39.89   C
ATOM   2563  CD1 LEU B 145      17.937  45.656  38.995  1.00 43.90   C
ATOM   2564  CD2 LEU B 145      19.016  46.439  41.080  1.00 44.54   C
ATOM   2565  C   LEU B 145      19.359  50.062  38.288  1.00 36.76   C
ATOM   2566  O   LEU B 145      20.369  50.358  37.663  1.00 37.25   O
ATOM   2567  N   ASN B 146      18.803  50.861  39.185  1.00 36.39   N
ATOM   2568  CA  ASN B 146      19.353  52.176  39.341  1.00 35.46   C
ATOM   2569  CB  ASN B 146      20.754  52.145  39.935  1.00 36.64   C
ATOM   2570  CG  ASN B 146      21.067  53.433  40.672  1.00 38.80   C
ATOM   2571  OD1 ASN B 146      20.184  53.978  41.304  1.00 42.15   O
ATOM   2572  ND2 ASN B 146      22.292  53.931  40.576  1.00 41.24   N
ATOM   2573  C   ASN B 146      19.454  52.779  37.982  1.00 33.81   C
ATOM   2574  O   ASN B 146      20.447  53.452  37.648  1.00 33.17   O
ATOM   2575  N   TYR B 147      18.414  52.558  37.193  1.00 32.15   N
ATOM   2576  CA  TYR B 147      18.441  53.067  35.835  1.00 31.20   C
ATOM   2577  CB  TYR B 147      18.434  51.896  34.845  1.00 31.08   C
ATOM   2578  CG  TYR B 147      18.271  52.332  33.406  1.00 30.14   C
ATOM   2579  CD1 TYR B 147      19.364  52.377  32.541  1.00 27.23   C
ATOM   2580  CE1 TYR B 147      19.232  52.779  31.245  1.00 26.71   C
ATOM   2581  CZ  TYR B 147      17.971  53.153  30.784  1.00 29.39   C
ATOM   2582  OH  TYR B 147      17.802  53.559  29.483  1.00 21.06   O
```

Figure 2-48

```
ATOM   2583  CE2 TYR B 147      16.872  53.102  31.631  1.00 29.94   C
ATOM   2584  CD2 TYR B 147      17.037  52.709  32.928  1.00 28.63   C
ATOM   2585  C   TYR B 147      17.358  54.103  35.465  1.00 30.05   C
ATOM   2586  O   TYR B 147      16.193  53.956  35.807  1.00 28.75   O
ATOM   2587  N   GLY B 148      17.798  55.138  34.755  1.00 29.43   N
ATOM   2588  CA  GLY B 148      16.932  56.128  34.129  1.00 28.51   C
ATOM   2589  C   GLY B 148      17.420  56.491  32.744  1.00 27.31   C
ATOM   2590  O   GLY B 148      18.584  56.748  32.561  1.00 28.08   O
ATOM   2591  N   GLY B 149      16.520  56.562  31.774  1.00 27.92   N
ATOM   2592  CA  GLY B 149      16.848  56.859  30.386  1.00 27.74   C
ATOM   2593  C   GLY B 149      17.631  58.125  30.137  1.00 29.09   C
ATOM   2594  O   GLY B 149      18.710  58.116  29.531  1.00 28.18   O
ATOM   2595  N   ARG B 150      17.094  59.242  30.606  1.00 28.51   N
ATOM   2596  CA  ARG B 150      17.786  60.502  30.402  1.00 29.89   C
ATOM   2597  CB  ARG B 150      16.936  61.648  30.894  1.00 29.29   C
ATOM   2598  CG  ARG B 150      15.555  61.609  30.347  1.00 29.05   C
ATOM   2599  CD  ARG B 150      14.712  62.669  30.921  1.00 27.49   C
ATOM   2600  NE  ARG B 150      13.617  63.047  30.075  1.00 29.61   N
ATOM   2601  CZ  ARG B 150      12.720  63.995  30.396  1.00 35.25   C
ATOM   2602  NH1 ARG B 150      12.837  64.666  31.550  1.00 37.29   N
ATOM   2603  NH2 ARG B 150      11.714  64.275  29.582  1.00 29.60   N
ATOM   2604  C   ARG B 150      19.088  60.486  31.167  1.00 30.73   C
ATOM   2605  O   ARG B 150      20.067  61.118  30.769  1.00 31.66   O
ATOM   2606  N   ALA B 151      19.092  59.735  32.252  1.00 32.24   N
ATOM   2607  CA  ALA B 151      20.272  59.634  33.095  1.00 34.17   C
ATOM   2608  CB  ALA B 151      20.003  58.720  34.292  1.00 34.28   C
ATOM   2609  C   ALA B 151      21.341  59.049  32.161  1.00 35.42   C
ATOM   2610  O   ALA B 151      22.412  59.620  31.976  1.00 34.27   O
ATOM   2611  N   GLU B 152      21.000  57.941  31.521  1.00 36.24   N
ATOM   2612  CA  GLU B 152      21.918  57.270  30.595  1.00 38.35   C
ATOM   2613  CB  GLU B 152      21.258  56.007  30.035  1.00 37.96   C
ATOM   2614  CG  GLU B 152      22.013  55.294  28.935  1.00 37.16   C
ATOM   2615  CD  GLU B 152      21.185  54.136  28.433  1.00 38.11   C
ATOM   2616  OE1 GLU B 152      19.944  54.284  28.388  1.00 36.93   O
ATOM   2617  OE2 GLU B 152      21.749  53.074  28.121  1.00 38.21   O
ATOM   2618  C   GLU B 152      22.425  58.155  29.462  1.00 38.89   C
ATOM   2619  O   GLU B 152      23.617  58.221  29.193  1.00 39.54   O
ATOM   2620  N   ILE B 153      21.525  58.851  28.810  1.00 39.76   N
ATOM   2621  CA  ILE B 153      21.919  59.702  27.710  1.00 40.82   C
ATOM   2622  CB  ILE B 153      20.663  60.272  27.043  1.00 39.72   C
ATOM   2623  CG1 ILE B 153      19.934  59.159  26.284  1.00 39.48   C
ATOM   2624  CD1 ILE B 153      18.513  59.508  25.951  1.00 35.50   C
ATOM   2625  CG2 ILE B 153      21.014  61.438  26.140  1.00 40.83   C
ATOM   2626  C   ILE B 153      22.853  60.813  28.176  1.00 42.89   C
ATOM   2627  O   ILE B 153      23.666  61.320  27.391  1.00 42.67   O
ATOM   2628  N   THR B 154      22.727  61.179  29.452  1.00 44.81   N
ATOM   2629  CA  THR B 154      23.558  62.213  30.079  1.00 46.11   C
ATOM   2630  CB  THR B 154      22.823  62.875  31.317  1.00 46.28   C
ATOM   2631  OG1 THR B 154      21.542  63.364  30.907  1.00 44.13   O
ATOM   2632  CG2 THR B 154      23.509  64.166  31.790  1.00 45.36   C
ATOM   2633  C   THR B 154      24.945  61.679  30.407  1.00 47.49   C
ATOM   2634  O   THR B 154      25.901  62.395  30.231  1.00 47.39   O
ATOM   2635  N   GLN B 155      25.062  60.429  30.855  1.00 50.27   N
ATOM   2636  CA  GLN B 155      26.382  59.807  31.002  1.00 53.77   C
ATOM   2637  CB  GLN B 155      26.244  58.361  31.451  1.00 53.75   C
ATOM   2638  CG  GLN B 155      26.267  58.175  32.933  1.00 56.56   C
ATOM   2639  CD  GLN B 155      27.635  57.749  33.440  1.00 60.63   C
```

Figure 2-49

```
ATOM   2640  OE1 GLN B 155      27.805  56.601  33.857  1.00 63.65   O
ATOM   2641  NE2 GLN B 155      28.609  58.663  33.408  1.00 60.39   N
ATOM   2642  C   GLN B 155      27.040  59.839  29.605  1.00 55.48   C
ATOM   2643  O   GLN B 155      27.975  60.598  29.346  1.00 55.90   O
ATOM   2644  N   ALA B 156      26.538  59.022  28.693  1.00 57.25   N
ATOM   2645  CA  ALA B 156      27.069  59.058  27.358  1.00 58.99   C
ATOM   2646  CB  ALA B 156      26.018  58.657  26.370  1.00 58.62   C
ATOM   2647  C   ALA B 156      27.518  60.476  27.071  1.00 60.63   C
ATOM   2648  O   ALA B 156      28.562  60.690  26.454  1.00 60.60   O
ATOM   2649  N   LEU B 157      26.729  61.455  27.498  1.00 62.61   N
ATOM   2650  CA  LEU B 157      27.065  62.825  27.148  1.00 64.88   C
ATOM   2651  CB  LEU B 157      25.949  63.796  27.462  1.00 64.56   C
ATOM   2652  CG  LEU B 157      26.551  65.194  27.243  1.00 64.56   C
ATOM   2653  CD1 LEU B 157      27.709  65.137  26.253  1.00 61.80   C
ATOM   2654  CD2 LEU B 157      25.506  66.230  26.812  1.00 62.35   C
ATOM   2655  C   LEU B 157      28.328  63.304  27.827  1.00 66.61   C
ATOM   2656  O   LEU B 157      29.202  63.885  27.198  1.00 67.29   O
ATOM   2657  N   LYS B 158      28.428  63.086  29.123  1.00 68.48   N
ATOM   2658  CA  LYS B 158      29.623  63.522  29.793  1.00 69.99   C
ATOM   2659  CB  LYS B 158      29.526  63.297  31.296  1.00 69.95   C
ATOM   2660  CG  LYS B 158      28.851  64.434  32.011  1.00 69.77   C
ATOM   2661  CD  LYS B 158      28.862  64.197  33.503  1.00 71.28   C
ATOM   2662  CE  LYS B 158      27.942  63.053  33.883  1.00 71.79   C
ATOM   2663  NZ  LYS B 158      27.931  62.806  35.346  1.00 71.70   N
ATOM   2664  C   LYS B 158      30.782  62.775  29.152  1.00 71.01   C
ATOM   2665  O   LYS B 158      31.831  63.348  28.904  1.00 71.28   O
ATOM   2666  N   LEU B 159      30.565  61.502  28.846  1.00 72.39   N
ATOM   2667  CA  LEU B 159      31.592  60.685  28.213  1.00 73.32   C
ATOM   2668  CB  LEU B 159      31.116  59.240  28.095  1.00 73.11   C
ATOM   2669  CG  LEU B 159      31.403  58.413  29.346  1.00 72.67   C
ATOM   2670  CD1 LEU B 159      30.897  56.972  29.199  1.00 71.96   C
ATOM   2671  CD2 LEU B 159      32.897  58.467  29.643  1.00 72.16   C
ATOM   2672  C   LEU B 159      32.046  61.219  26.851  1.00 74.07   C
ATOM   2673  O   LEU B 159      33.244  61.395  26.628  1.00 74.08   O
ATOM   2674  N   ILE B 160      31.095  61.478  25.957  1.00 75.23   N
ATOM   2675  CA  ILE B 160      31.426  62.011  24.636  1.00 76.19   C
ATOM   2676  CB  ILE B 160      30.161  62.238  23.775  1.00 75.85   C
ATOM   2677  CG1 ILE B 160      29.585  60.920  23.266  1.00 75.77   C
ATOM   2678  CD1 ILE B 160      28.305  61.094  22.479  1.00 73.85   C
ATOM   2679  CG2 ILE B 160      30.487  63.109  22.584  1.00 75.41   C
ATOM   2680  C   ILE B 160      32.160  63.332  24.790  1.00 77.38   C
ATOM   2681  O   ILE B 160      33.201  63.557  24.173  1.00 77.95   O
ATOM   2682  N   SER B 161      31.607  64.207  25.619  1.00 78.59   N
ATOM   2683  CA  SER B 161      32.172  65.540  25.857  1.00 79.47   C
ATOM   2684  CB  SER B 161      31.401  66.220  26.983  1.00 79.29   C
ATOM   2685  OG  SER B 161      31.046  65.266  27.970  1.00 78.30   O
ATOM   2686  C   SER B 161      33.674  65.551  26.174  1.00 80.29   C
ATOM   2687  O   SER B 161      34.453  66.207  25.489  1.00 80.36   O
ATOM   2688  N   ALA B 162      34.067  64.822  27.214  1.00 81.41   N
ATOM   2689  CA  ALA B 162      35.460  64.763  27.647  1.00 82.47   C
ATOM   2690  CB  ALA B 162      35.591  63.909  28.901  1.00 82.49   C
ATOM   2691  C   ALA B 162      36.393  64.240  26.555  1.00 83.26   C
ATOM   2692  O   ALA B 162      37.576  64.574  26.526  1.00 83.55   O
ATOM   2693  N   ASP B 163      35.868  63.400  25.673  1.00 83.73   N
ATOM   2694  CA  ASP B 163      36.679  62.881  24.596  1.00 83.98   C
ATOM   2695  CB  ASP B 163      36.150  61.514  24.131  1.00 83.92   C
ATOM   2696  CG  ASP B 163      36.485  60.375  25.111  1.00 83.93   C
```

Figure 2-50

```
ATOM   2697  OD1 ASP B 163      37.138  60.635  26.145  1.00 83.40   O
ATOM   2698  OD2 ASP B 163      36.141  59.183  24.921  1.00 84.57   O
ATOM   2699  C   ASP B 163      36.713  63.939  23.478  1.00 84.23   C
ATOM   2700  O   ASP B 163      37.714  64.099  22.776  1.00 84.28   O
ATOM   2701  N   VAL B 164      35.630  64.695  23.349  1.00 84.36   N
ATOM   2702  CA  VAL B 164      35.544  65.724  22.324  1.00 84.58   C
ATOM   2703  CB  VAL B 164      34.089  66.193  22.099  1.00 84.83   C
ATOM   2704  CG1 VAL B 164      33.968  67.688  22.319  1.00 85.23   C
ATOM   2705  CG2 VAL B 164      33.619  65.840  20.699  1.00 85.23   C
ATOM   2706  C   VAL B 164      36.370  66.935  22.684  1.00 84.55   C
ATOM   2707  O   VAL B 164      36.623  67.793  21.849  1.00 84.30   O
ATOM   2708  N   LEU B 165      36.783  67.024  23.937  1.00 84.79   N
ATOM   2709  CA  LEU B 165      37.541  68.188  24.342  1.00 84.90   C
ATOM   2710  CB  LEU B 165      37.267  68.561  25.799  1.00 85.00   C
ATOM   2711  CG  LEU B 165      37.007  70.051  26.053  1.00 84.77   C
ATOM   2712  CD1 LEU B 165      36.868  70.328  27.535  1.00 84.59   C
ATOM   2713  CD2 LEU B 165      38.103  70.916  25.449  1.00 85.81   C
ATOM   2714  C   LEU B 165      39.003  67.897  24.113  1.00 85.00   C
ATOM   2715  O   LEU B 165      39.648  68.556  23.305  1.00 85.20   O
ATOM   2716  N   ASP B 166      39.526  66.891  24.800  1.00 85.06   N
ATOM   2717  CA  ASP B 166      40.918  66.539  24.604  1.00 85.10   C
ATOM   2718  CB  ASP B 166      41.418  65.559  25.664  1.00 85.36   C
ATOM   2719  CG  ASP B 166      40.338  65.125  26.606  1.00 85.64   C
ATOM   2720  OD1 ASP B 166      39.606  66.007  27.113  1.00 86.80   O
ATOM   2721  OD2 ASP B 166      40.161  63.925  26.908  1.00 85.92   O
ATOM   2722  C   ASP B 166      41.202  66.056  23.182  1.00 85.02   C
ATOM   2723  O   ASP B 166      42.276  65.529  22.896  1.00 85.58   O
ATOM   2724  N   ALA B 167      40.225  66.225  22.301  1.00 84.59   N
ATOM   2725  CA  ALA B 167      40.407  65.984  20.868  1.00 84.20   C
ATOM   2726  CB  ALA B 167      41.682  66.678  20.366  1.00 84.31   C
ATOM   2727  C   ALA B 167      40.350  64.555  20.333  1.00 83.75   C
ATOM   2728  O   ALA B 167      40.792  64.320  19.205  1.00 83.32   O
ATOM   2729  N   LYS B 168      39.807  63.611  21.101  1.00 83.40   N
ATOM   2730  CA  LYS B 168      39.683  62.239  20.598  1.00 83.08   C
ATOM   2731  CB  LYS B 168      39.289  61.245  21.692  1.00 83.18   C
ATOM   2732  CG  LYS B 168      40.428  60.757  22.592  1.00 83.97   C
ATOM   2733  CD  LYS B 168      40.006  59.558  23.455  1.00 85.17   C
ATOM   2734  CE  LYS B 168      41.182  59.039  24.292  1.00 86.19   C
ATOM   2735  NZ  LYS B 168      40.833  57.991  25.308  1.00 85.30   N
ATOM   2736  C   LYS B 168      38.633  62.178  19.496  1.00 82.58   C
ATOM   2737  O   LYS B 168      38.447  61.138  18.862  1.00 82.71   O
ATOM   2738  N   ILE B 169      37.943  63.296  19.286  1.00 81.78   N
ATOM   2739  CA  ILE B 169      36.876  63.359  18.306  1.00 81.19   C
ATOM   2740  CB  ILE B 169      35.667  62.549  18.775  1.00 81.32   C
ATOM   2741  CG1 ILE B 169      35.613  61.212  18.039  1.00 81.92   C
ATOM   2742  CD1 ILE B 169      34.609  60.255  18.605  1.00 83.64   C
ATOM   2743  CG2 ILE B 169      34.406  63.322  18.508  1.00 81.08   C
ATOM   2744  C   ILE B 169      36.446  64.780  18.004  1.00 80.69   C
ATOM   2745  O   ILE B 169      36.667  65.694  18.779  1.00 80.44   O
ATOM   2746  N   ASN B 170      35.799  64.945  16.866  1.00 80.23   N
ATOM   2747  CA  ASN B 170      35.403  66.255  16.408  1.00 79.75   C
ATOM   2748  CB  ASN B 170      35.891  66.433  14.973  1.00 80.16   C
ATOM   2749  CG  ASN B 170      37.376  66.109  14.827  1.00 81.48   C
ATOM   2750  OD1 ASN B 170      37.949  66.212  13.745  1.00 82.57   O
ATOM   2751  ND2 ASN B 170      38.004  65.718  15.931  1.00 82.88   N
ATOM   2752  C   ASN B 170      33.899  66.493  16.544  1.00 78.97   C
ATOM   2753  O   ASN B 170      33.142  65.575  16.863  1.00 78.81   O
```

Figure 2-51

```
ATOM   2754  N   PRO B 171      33.476  67.730  16.298  1.00 78.08   N
ATOM   2755  CA  PRO B 171      32.076  68.142  16.460  1.00 77.09   C
ATOM   2756  CB  PRO B 171      32.177  69.665  16.331  1.00 77.28   C
ATOM   2757  CG  PRO B 171      33.236  69.808  15.266  1.00 77.93   C
ATOM   2758  CD  PRO B 171      34.303  68.852  15.807  1.00 78.34   C
ATOM   2759  C   PRO B 171      31.165  67.587  15.367  1.00 75.62   C
ATOM   2760  O   PRO B 171      29.954  67.507  15.564  1.00 75.49   O
ATOM   2761  N   GLY B 172      31.751  67.231  14.226  1.00 74.09   N
ATOM   2762  CA  GLY B 172      31.012  66.648  13.123  1.00 71.86   C
ATOM   2763  C   GLY B 172      31.005  65.133  13.253  1.00 70.28   C
ATOM   2764  O   GLY B 172      30.146  64.462  12.696  1.00 70.26   O
ATOM   2765  N   ASP B 173      31.963  64.601  14.007  1.00 68.10   N
ATOM   2766  CA  ASP B 173      32.085  63.168  14.211  1.00 66.31   C
ATOM   2767  CB  ASP B 173      33.499  62.839  14.708  1.00 66.76   C
ATOM   2768  CG  ASP B 173      34.524  62.738  13.568  1.00 68.92   C
ATOM   2769  OD1 ASP B 173      35.256  61.726  13.544  1.00 71.61   O
ATOM   2770  OD2 ASP B 173      34.687  63.600  12.660  1.00 70.82   O
ATOM   2771  C   ASP B 173      31.024  62.574  15.172  1.00 64.53   C
ATOM   2772  O   ASP B 173      31.123  61.411  15.558  1.00 64.44   O
ATOM   2773  N   ILE B 174      30.030  63.376  15.567  1.00 61.91   N
ATOM   2774  CA  ILE B 174      28.956  62.925  16.463  1.00 58.71   C
ATOM   2775  CB  ILE B 174      28.456  64.084  17.332  1.00 59.10   C
ATOM   2776  CG1 ILE B 174      29.578  64.616  18.220  1.00 59.36   C
ATOM   2777  CD1 ILE B 174      30.014  63.625  19.306  1.00 62.60   C
ATOM   2778  CG2 ILE B 174      27.263  63.635  18.200  1.00 59.02   C
ATOM   2779  C   ILE B 174      27.803  62.363  15.646  1.00 56.29   C
ATOM   2780  O   ILE B 174      27.248  63.041  14.775  1.00 55.52   O
ATOM   2781  N   THR B 175      27.419  61.130  15.928  1.00 53.48   N
ATOM   2782  CA  THR B 175      26.405  60.501  15.104  1.00 51.06   C
ATOM   2783  CB  THR B 175      27.092  59.569  14.096  1.00 50.77   C
ATOM   2784  OG1 THR B 175      27.849  58.601  14.832  1.00 49.92   O
ATOM   2785  CG2 THR B 175      28.150  60.310  13.297  1.00 50.53   C
ATOM   2786  C   THR B 175      25.485  59.651  15.935  1.00 49.17   C
ATOM   2787  O   THR B 175      25.898  59.156  16.972  1.00 48.81   O
ATOM   2788  N   GLU B 176      24.261  59.444  15.441  1.00 47.21   N
ATOM   2789  CA  GLU B 176      23.341  58.535  16.088  1.00 45.87   C
ATOM   2790  CB  GLU B 176      22.192  58.142  15.164  1.00 45.55   C
ATOM   2791  CG  GLU B 176      21.247  59.267  14.812  1.00 46.48   C
ATOM   2792  CD  GLU B 176      19.936  58.770  14.231  1.00 49.73   C
ATOM   2793  OE1 GLU B 176      19.094  59.611  13.865  1.00 49.07   O
ATOM   2794  OE2 GLU B 176      19.740  57.533  14.137  1.00 53.35   O
ATOM   2795  C   GLU B 176      24.162  57.316  16.457  1.00 44.95   C
ATOM   2796  O   GLU B 176      24.122  56.833  17.587  1.00 44.63   O
ATOM   2797  N   GLU B 177      24.947  56.861  15.493  1.00 44.41   N
ATOM   2798  CA  GLU B 177      25.797  55.711  15.642  1.00 44.34   C
ATOM   2799  CB  GLU B 177      26.520  55.445  14.327  1.00 45.29   C
ATOM   2800  CG  GLU B 177      25.652  55.556  13.075  1.00 47.64   C
ATOM   2801  CD  GLU B 177      25.784  56.891  12.335  1.00 53.34   C
ATOM   2802  OE1 GLU B 177      25.011  57.821  12.651  1.00 52.93   O
ATOM   2803  OE2 GLU B 177      26.645  57.008  11.414  1.00 54.74   O
ATOM   2804  C   GLU B 177      26.809  55.843  16.779  1.00 44.22   C
ATOM   2805  O   GLU B 177      27.099  54.855  17.484  1.00 44.13   O
ATOM   2806  N   LEU B 178      27.362  57.045  16.964  1.00 43.02   N
ATOM   2807  CA  LEU B 178      28.331  57.254  18.034  1.00 41.80   C
ATOM   2808  CB  LEU B 178      29.123  58.541  17.796  1.00 42.42   C
ATOM   2809  CG  LEU B 178      30.430  58.762  18.556  1.00 43.29   C
ATOM   2810  CD1 LEU B 178      31.346  59.640  17.728  1.00 44.45   C
```

Figure 2-52

```
ATOM   2811  CD2 LEU B 178      30.196  59.399  19.943  1.00 43.68   C
ATOM   2812  C   LEU B 178      27.727  57.267  19.434  1.00 40.62   C
ATOM   2813  O   LEU B 178      28.315  56.739  20.375  1.00 39.80   O
ATOM   2814  N   ILE B 179      26.571  57.900  19.591  1.00 40.25   N
ATOM   2815  CA  ILE B 179      25.929  57.938  20.904  1.00 38.90   C
ATOM   2816  CB  ILE B 179      24.648  58.757  20.832  1.00 39.65   C
ATOM   2817  CG1 ILE B 179      24.975  60.172  20.387  1.00 40.14   C
ATOM   2818  CD1 ILE B 179      23.883  60.812  19.568  1.00 46.93   C
ATOM   2819  CG2 ILE B 179      23.921  58.775  22.195  1.00 38.03   C
ATOM   2820  C   ILE B 179      25.670  56.517  21.402  1.00 38.46   C
ATOM   2821  O   ILE B 179      25.936  56.193  22.559  1.00 38.57   O
ATOM   2822  N   GLY B 180      25.197  55.653  20.510  1.00 38.04   N
ATOM   2823  CA  GLY B 180      24.933  54.252  20.837  1.00 37.30   C
ATOM   2824  C   GLY B 180      26.117  53.512  21.446  1.00 37.58   C
ATOM   2825  O   GLY B 180      25.976  52.579  22.250  1.00 36.37   O
ATOM   2826  N   ASN B 181      27.308  53.937  21.066  1.00 37.49   N
ATOM   2827  CA  ASN B 181      28.498  53.372  21.659  1.00 37.70   C
ATOM   2828  CB  ASN B 181      29.701  53.638  20.751  1.00 37.98   C
ATOM   2829  CG  ASN B 181      29.714  52.734  19.519  1.00 38.45   C
ATOM   2830  OD1 ASN B 181      29.772  51.507  19.640  1.00 39.24   O
ATOM   2831  ND2 ASN B 181      29.689  53.336  18.338  1.00 36.29   N
ATOM   2832  C   ASN B 181      28.720  53.924  23.069  1.00 37.65   C
ATOM   2833  O   ASN B 181      29.366  53.295  23.908  1.00 37.69   O
ATOM   2834  N   TYR B 182      28.168  55.099  23.357  1.00 37.81   N
ATOM   2835  CA  TYR B 182      28.378  55.666  24.699  1.00 37.31   C
ATOM   2836  CB  TYR B 182      28.546  57.170  24.646  1.00 37.85   C
ATOM   2837  CG  TYR B 182      29.884  57.634  24.086  1.00 42.37   C
ATOM   2838  CD1 TYR B 182      30.815  58.291  24.888  1.00 44.71   C
ATOM   2839  CE1 TYR B 182      32.023  58.718  24.383  1.00 47.57   C
ATOM   2840  CZ  TYR B 182      32.319  58.495  23.058  1.00 50.02   C
ATOM   2841  OH  TYR B 182      33.524  58.908  22.532  1.00 52.92   O
ATOM   2842  CE2 TYR B 182      31.408  57.856  22.242  1.00 49.59   C
ATOM   2843  CD2 TYR B 182      30.206  57.428  22.756  1.00 45.47   C
ATOM   2844  C   TYR B 182      27.312  55.310  25.705  1.00 36.58   C
ATOM   2845  O   TYR B 182      27.479  55.595  26.881  1.00 35.20   O
ATOM   2846  N   LEU B 183      26.230  54.655  25.262  1.00 36.32   N
ATOM   2847  CA  LEU B 183      25.147  54.285  26.194  1.00 35.61   C
ATOM   2848  CB  LEU B 183      23.793  54.278  25.491  1.00 35.22   C
ATOM   2849  CG  LEU B 183      23.330  55.437  24.629  1.00 32.54   C
ATOM   2850  CD1 LEU B 183      22.233  54.866  23.801  1.00 29.59   C
ATOM   2851  CD2 LEU B 183      22.836  56.631  25.440  1.00 25.35   C
ATOM   2852  C   LEU B 183      25.335  52.962  26.931  1.00 36.29   C
ATOM   2853  O   LEU B 183      26.110  52.108  26.527  1.00 36.57   O
ATOM   2854  N   PHE B 184      24.570  52.756  27.992  1.00 36.85   N
ATOM   2855  CA  PHE B 184      24.749  51.564  28.807  1.00 37.67   C
ATOM   2856  CB  PHE B 184      23.750  51.525  29.965  1.00 38.55   C
ATOM   2857  CG  PHE B 184      24.003  52.600  31.007  1.00 39.11   C
ATOM   2858  CD1 PHE B 184      25.247  52.741  31.577  1.00 39.61   C
ATOM   2859  CE1 PHE B 184      25.496  53.718  32.509  1.00 40.64   C
ATOM   2860  CZ  PHE B 184      24.487  54.578  32.889  1.00 42.99   C
ATOM   2861  CE2 PHE B 184      23.242  54.454  32.322  1.00 42.29   C
ATOM   2862  CD2 PHE B 184      23.008  53.460  31.392  1.00 40.64   C
ATOM   2863  C   PHE B 184      24.705  50.287  28.020  1.00 37.99   C
ATOM   2864  O   PHE B 184      25.462  49.345  28.310  1.00 38.32   O
ATOM   2865  N   THR B 185      23.842  50.248  27.012  1.00 37.68   N
ATOM   2866  CA  THR B 185      23.667  49.032  26.219  1.00 37.40   C
ATOM   2867  CB  THR B 185      22.349  49.108  25.431  1.00 37.61   C
```

Figure 2-53

```
ATOM   2868  OG1 THR B 185      22.219  50.398  24.825  1.00 35.20   O
ATOM   2869  CG2 THR B 185      21.172  49.040  26.374  1.00 36.51   C
ATOM   2870  C   THR B 185      24.820  48.674  25.269  1.00 37.87   C
ATOM   2871  O   THR B 185      24.722  47.733  24.514  1.00 36.42   O
ATOM   2872  N   GLN B 186      25.908  49.422  25.323  1.00 39.90   N
ATOM   2873  CA  GLN B 186      27.021  49.223  24.397  1.00 42.95   C
ATOM   2874  CB  GLN B 186      28.052  50.369  24.519  1.00 43.09   C
ATOM   2875  CG  GLN B 186      28.908  50.366  25.827  1.00 46.28   C
ATOM   2876  CD  GLN B 186      30.153  51.264  25.720  1.00 50.62   C
ATOM   2877  OE1 GLN B 186      30.418  52.078  26.601  1.00 52.05   O
ATOM   2878  NE2 GLN B 186      30.908  51.113  24.628  1.00 52.43   N
ATOM   2879  C   GLN B 186      27.662  47.867  24.662  1.00 44.42   C
ATOM   2880  O   GLN B 186      28.315  47.280  23.806  1.00 43.54   O
ATOM   2881  N   HIS B 187      27.417  47.353  25.858  1.00 46.58   N
ATOM   2882  CA  HIS B 187      27.994  46.089  26.236  1.00 48.59   C
ATOM   2883  CB  HIS B 187      28.053  45.992  27.750  1.00 49.70   C
ATOM   2884  CG  HIS B 187      29.094  46.887  28.344  1.00 52.97   C
ATOM   2885  ND1 HIS B 187      29.027  47.362  29.634  1.00 56.44   N
ATOM   2886  CE1 HIS B 187      30.078  48.126  29.875  1.00 58.94   C
ATOM   2887  NE2 HIS B 187      30.823  48.166  28.784  1.00 59.96   N
ATOM   2888  CD2 HIS B 187      30.227  47.401  27.810  1.00 56.13   C
ATOM   2889  C   HIS B 187      27.268  44.923  25.613  1.00 48.75   C
ATOM   2890  O   HIS B 187      27.592  43.773  25.886  1.00 48.49   O
ATOM   2891  N   LEU B 188      26.302  45.231  24.753  1.00 48.70   N
ATOM   2892  CA  LEU B 188      25.540  44.204  24.052  1.00 48.65   C
ATOM   2893  CB  LEU B 188      24.030  44.496  24.047  1.00 48.09   C
ATOM   2894  CG  LEU B 188      23.261  44.563  25.343  1.00 48.62   C
ATOM   2895  CD1 LEU B 188      21.919  45.219  25.109  1.00 49.00   C
ATOM   2896  CD2 LEU B 188      23.112  43.174  25.947  1.00 48.89   C
ATOM   2897  C   LEU B 188      25.983  44.194  22.621  1.00 48.33   C
ATOM   2898  O   LEU B 188      26.384  45.216  22.086  1.00 48.03   O
ATOM   2899  N   PRO B 189      25.885  43.026  22.006  1.00 48.71   N
ATOM   2900  CA  PRO B 189      26.149  42.868  20.577  1.00 48.97   C
ATOM   2901  CB  PRO B 189      25.473  41.547  20.256  1.00 49.06   C
ATOM   2902  CG  PRO B 189      25.682  40.751  21.516  1.00 49.02   C
ATOM   2903  CD  PRO B 189      25.552  41.748  22.649  1.00 48.14   C
ATOM   2904  C   PRO B 189      25.512  43.961  19.794  1.00 49.77   C
ATOM   2905  O   PRO B 189      24.310  44.245  19.943  1.00 50.30   O
ATOM   2906  N   LYS B 190      26.336  44.552  18.943  1.00 50.55   N
ATOM   2907  CA  LYS B 190      25.990  45.674  18.090  1.00 50.78   C
ATOM   2908  CB  LYS B 190      27.129  45.963  17.121  1.00 51.11   C
ATOM   2909  CG  LYS B 190      27.106  47.389  16.573  1.00 53.72   C
ATOM   2910  CD  LYS B 190      28.502  48.038  16.665  1.00 55.87   C
ATOM   2911  CE  LYS B 190      28.414  49.364  17.403  1.00 57.89   C
ATOM   2912  NZ  LYS B 190      29.724  50.061  17.583  1.00 58.75   N
ATOM   2913  C   LYS B 190      24.697  45.608  17.297  1.00 50.84   C
ATOM   2914  O   LYS B 190      24.273  46.625  16.732  1.00 52.58   O
ATOM   2915  N   ASP B 191      24.056  44.460  17.191  1.00 48.98   N
ATOM   2916  CA  ASP B 191      22.806  44.506  16.445  1.00 47.79   C
ATOM   2917  CB  ASP B 191      22.899  43.798  15.079  1.00 49.82   C
ATOM   2918  CG  ASP B 191      23.180  42.330  15.199  1.00 52.72   C
ATOM   2919  OD1 ASP B 191      23.889  41.924  16.150  1.00 57.58   O
ATOM   2920  OD2 ASP B 191      22.742  41.503  14.372  1.00 58.14   O
ATOM   2921  C   ASP B 191      21.658  44.008  17.297  1.00 44.92   C
ATOM   2922  O   ASP B 191      20.572  43.780  16.814  1.00 44.51   O
ATOM   2923  N   LEU B 192      21.950  43.889  18.582  1.00 41.71   N
ATOM   2924  CA  LEU B 192      21.027  43.461  19.603  1.00 39.23   C
```

Figure 2-54

```
ATOM   2925  CB  LEU B 192      21.665  42.296  20.359  1.00 39.07   C
ATOM   2926  CG  LEU B 192      21.720  41.037  19.494  1.00 39.27   C
ATOM   2927  CD1 LEU B 192      22.614  39.968  20.119  1.00 38.96   C
ATOM   2928  CD2 LEU B 192      20.319  40.527  19.276  1.00 34.91   C
ATOM   2929  C   LEU B 192      20.763  44.592  20.618  1.00 37.08   C
ATOM   2930  O   LEU B 192      20.044  44.391  21.598  1.00 35.61   O
ATOM   2931  N   ARG B 193      21.365  45.755  20.388  1.00 33.95   N
ATOM   2932  CA  ARG B 193      21.308  46.819  21.379  1.00 33.40   C
ATOM   2933  CB  ARG B 193      22.367  47.883  21.078  1.00 33.10   C
ATOM   2934  CG  ARG B 193      23.800  47.406  21.296  1.00 35.33   C
ATOM   2935  CD  ARG B 193      24.806  48.166  20.464  1.00 37.62   C
ATOM   2936  NE  ARG B 193      26.187  48.034  20.923  1.00 41.41   N
ATOM   2937  CZ  ARG B 193      27.115  48.974  20.731  1.00 42.67   C
ATOM   2938  NH1 ARG B 193      26.804  50.101  20.089  1.00 42.20   N
ATOM   2939  NH2 ARG B 193      28.351  48.789  21.165  1.00 42.08   N
ATOM   2940  C   ARG B 193      19.900  47.467  21.608  1.00 31.50   C
ATOM   2941  O   ARG B 193      19.580  47.858  22.723  1.00 29.62   O
ATOM   2942  N   ASP B 194      19.090  47.539  20.552  1.00 30.14   N
ATOM   2943  CA  ASP B 194      17.767  48.161  20.630  1.00 30.31   C
ATOM   2944  CB  ASP B 194      17.524  49.000  19.382  1.00 29.24   C
ATOM   2945  CG  ASP B 194      18.584  50.049  19.182  1.00 30.33   C
ATOM   2946  OD1 ASP B 194      19.284  50.364  20.171  1.00 30.13   O
ATOM   2947  OD2 ASP B 194      18.804  50.603  18.074  1.00 31.57   O
ATOM   2948  C   ASP B 194      16.638  47.114  20.775  1.00 30.32   C
ATOM   2949  O   ASP B 194      16.547  46.142  20.028  1.00 29.72   O
ATOM   2950  N   PRO B 195      15.725  47.323  21.691  1.00 30.25   N
ATOM   2951  CA  PRO B 195      14.629  46.348  21.798  1.00 29.79   C
ATOM   2952  CB  PRO B 195      13.812  46.888  22.959  1.00 30.01   C
ATOM   2953  CG  PRO B 195      14.735  47.853  23.693  1.00 30.22   C
ATOM   2954  CD  PRO B 195      15.633  48.424  22.663  1.00 29.49   C
ATOM   2955  C   PRO B 195      13.762  46.298  20.545  1.00 29.54   C
ATOM   2956  O   PRO B 195      13.408  47.322  20.002  1.00 28.98   O
ATOM   2957  N   ASP B 196      13.385  45.124  20.083  1.00 30.10   N
ATOM   2958  CA  ASP B 196      12.372  45.085  19.004  1.00 30.09   C
ATOM   2959  CB  ASP B 196      12.485  43.833  18.144  1.00 30.33   C
ATOM   2960  CG  ASP B 196      13.915  43.551  17.720  1.00 31.13   C
ATOM   2961  OD1 ASP B 196      14.760  43.259  18.617  1.00 27.56   O
ATOM   2962  OD2 ASP B 196      14.262  43.586  16.513  1.00 31.97   O
ATOM   2963  C   ASP B 196      10.968  45.148  19.589  1.00 28.91   C
ATOM   2964  O   ASP B 196      10.010  45.465  18.903  1.00 28.17   O
ATOM   2965  N   LEU B 197      10.856  44.884  20.873  1.00 27.98   N
ATOM   2966  CA  LEU B 197       9.542  44.867  21.491  1.00 28.22   C
ATOM   2967  CB  LEU B 197       8.999  43.439  21.458  1.00 28.00   C
ATOM   2968  CG  LEU B 197       7.706  43.275  22.238  1.00 28.91   C
ATOM   2969  CD1 LEU B 197       6.702  44.126  21.515  1.00 28.80   C
ATOM   2970  CD2 LEU B 197       7.264  41.806  22.240  1.00 32.85   C
ATOM   2971  C   LEU B 197       9.621  45.296  22.940  1.00 27.53   C
ATOM   2972  O   LEU B 197      10.490  44.838  23.640  1.00 28.57   O
ATOM   2973  N   ILE B 198       8.737  46.166  23.406  1.00 27.47   N
ATOM   2974  CA  ILE B 198       8.747  46.523  24.833  1.00 27.94   C
ATOM   2975  CB  ILE B 198       9.064  48.020  25.090  1.00 27.09   C
ATOM   2976  CG1 ILE B 198      10.415  48.436  24.570  1.00 27.97   C
ATOM   2977  CD1 ILE B 198      10.627  49.971  24.724  1.00 21.93   C
ATOM   2978  CG2 ILE B 198       9.129  48.325  26.572  1.00 27.77   C
ATOM   2979  C   ILE B 198       7.380  46.164  25.401  1.00 27.73   C
ATOM   2980  O   ILE B 198       6.361  46.415  24.760  1.00 28.10   O
ATOM   2981  N   ILE B 199       7.372  45.572  26.582  1.00 28.20   N
```

Figure 2-55

```
ATOM   2982  CA  ILE B 199       6.161  45.067  27.227  1.00 30.01   C
ATOM   2983  CB  ILE B 199       6.287  43.533  27.489  1.00 29.81   C
ATOM   2984  CG1 ILE B 199       5.984  42.705  26.241  1.00 31.77   C
ATOM   2985  CD1 ILE B 199       6.594  41.293  26.320  1.00 29.80   C
ATOM   2986  CG2 ILE B 199       5.402  43.066  28.628  1.00 30.47   C
ATOM   2987  C   ILE B 199       6.001  45.774  28.577  1.00 30.85   C
ATOM   2988  O   ILE B 199       6.971  45.847  29.365  1.00 29.82   O
ATOM   2989  N   ARG B 200       4.817  46.348  28.813  1.00 32.15   N
ATOM   2990  CA  ARG B 200       4.467  46.857  30.140  1.00 34.28   C
ATOM   2991  CB  ARG B 200       4.061  48.326  30.141  1.00 35.43   C
ATOM   2992  CG  ARG B 200       3.858  48.857  31.560  1.00 35.97   C
ATOM   2993  CD  ARG B 200       4.198  50.332  31.788  1.00 34.16   C
ATOM   2994  NE  ARG B 200       4.489  50.579  33.199  1.00 32.01   N
ATOM   2995  CZ  ARG B 200       5.101  51.658  33.637  1.00 30.80   C
ATOM   2996  NH1 ARG B 200       5.482  52.589  32.767  1.00 30.95   N
ATOM   2997  NH2 ARG B 200       5.326  51.818  34.938  1.00 27.96   N
ATOM   2998  C   ARG B 200       3.340  46.038  30.714  1.00 35.90   C
ATOM   2999  O   ARG B 200       2.389  45.654  30.001  1.00 35.94   O
ATOM   3000  N   THR B 201       3.467  45.714  31.991  1.00 37.78   N
ATOM   3001  CA  THR B 201       2.428  44.973  32.677  1.00 39.06   C
ATOM   3002  CB  THR B 201       3.045  43.811  33.477  1.00 39.73   C
ATOM   3003  OG1 THR B 201       4.130  44.299  34.274  1.00 38.62   O
ATOM   3004  CG2 THR B 201       3.707  42.757  32.553  1.00 37.89   C
ATOM   3005  C   THR B 201       1.686  45.931  33.620  1.00 40.27   C
ATOM   3006  O   THR B 201       2.101  47.078  33.800  1.00 39.89   O
ATOM   3007  N   SER B 202       0.571  45.459  34.190  1.00 41.33   N
ATOM   3008  CA  SER B 202      -0.179  46.212  35.198  1.00 41.26   C
ATOM   3009  CB  SER B 202       0.779  46.785  36.242  1.00 42.01   C
ATOM   3010  OG  SER B 202       0.117  47.723  37.080  1.00 43.68   O
ATOM   3011  C   SER B 202      -1.033  47.341  34.679  1.00 41.35   C
ATOM   3012  O   SER B 202      -1.297  48.294  35.419  1.00 41.03   O
ATOM   3013  N   GLY B 203      -1.434  47.253  33.416  1.00 41.82   N
ATOM   3014  CA  GLY B 203      -2.344  48.205  32.792  1.00 42.62   C
ATOM   3015  C   GLY B 203      -1.871  49.626  32.588  1.00 44.02   C
ATOM   3016  O   GLY B 203      -2.592  50.473  32.033  1.00 44.27   O
ATOM   3017  N   GLU B 204      -0.661  49.923  33.033  1.00 44.75   N
ATOM   3018  CA  GLU B 204      -0.165  51.265  32.863  1.00 45.29   C
ATOM   3019  CB  GLU B 204       1.010  51.507  33.790  1.00 46.63   C
ATOM   3020  CG  GLU B 204       0.594  52.102  35.130  1.00 51.35   C
ATOM   3021  CD  GLU B 204      -0.614  53.033  34.995  1.00 57.96   C
ATOM   3022  OE1 GLU B 204      -0.701  53.792  33.988  1.00 61.18   O
ATOM   3023  OE2 GLU B 204      -1.496  52.992  35.886  1.00 60.52   O
ATOM   3024  C   GLU B 204       0.218  51.458  31.416  1.00 44.98   C
ATOM   3025  O   GLU B 204       0.692  50.520  30.764  1.00 45.73   O
ATOM   3026  N   LEU B 205      -0.022  52.652  30.888  1.00 43.89   N
ATOM   3027  CA  LEU B 205       0.332  52.938  29.511  1.00 42.79   C
ATOM   3028  CB  LEU B 205      -0.899  53.330  28.676  1.00 43.82   C
ATOM   3029  CG  LEU B 205      -2.059  52.397  28.287  1.00 44.28   C
ATOM   3030  CD1 LEU B 205      -2.228  52.479  26.789  1.00 45.58   C
ATOM   3031  CD2 LEU B 205      -1.871  50.937  28.696  1.00 45.48   C
ATOM   3032  C   LEU B 205       1.366  54.058  29.387  1.00 41.73   C
ATOM   3033  O   LEU B 205       0.993  55.161  29.050  1.00 40.67   O
ATOM   3034  N   ARG B 206       2.641  53.753  29.661  1.00 41.29   N
ATOM   3035  CA  ARG B 206       3.772  54.669  29.472  1.00 41.28   C
ATOM   3036  CB  ARG B 206       3.632  55.911  30.342  1.00 41.75   C
ATOM   3037  CG  ARG B 206       3.007  55.600  31.657  1.00 44.96   C
ATOM   3038  CD  ARG B 206       2.999  56.730  32.674  1.00 50.66   C
```

Figure 2-56

```
ATOM   3039  NE  ARG B 206       3.442  56.154  33.937  1.00 54.68   N
ATOM   3040  CZ  ARG B 206       2.649  55.844  34.950  1.00 57.15   C
ATOM   3041  NH1 ARG B 206       1.343  56.100  34.880  1.00 58.93   N
ATOM   3042  NH2 ARG B 206       3.175  55.294  36.049  1.00 57.10   N
ATOM   3043  C   ARG B 206       5.148  53.987  29.676  1.00 40.24   C
ATOM   3044  O   ARG B 206       5.256  52.935  30.291  1.00 40.12   O
ATOM   3045  N   LEU B 207       6.213  54.593  29.163  1.00 38.99   N
ATOM   3046  CA  LEU B 207       7.516  53.927  29.237  1.00 37.52   C
ATOM   3047  CB  LEU B 207       8.326  54.187  27.966  1.00 38.43   C
ATOM   3048  CG  LEU B 207       7.702  53.613  26.688  1.00 39.19   C
ATOM   3049  CD1 LEU B 207       6.876  52.352  27.039  1.00 39.48   C
ATOM   3050  CD2 LEU B 207       6.862  54.659  25.992  1.00 38.80   C
ATOM   3051  C   LEU B 207       8.360  54.256  30.478  1.00 35.94   C
ATOM   3052  O   LEU B 207       9.351  53.571  30.761  1.00 36.00   O
ATOM   3053  N   SER B 208       7.940  55.272  31.216  1.00 32.29   N
ATOM   3054  CA  SER B 208       8.669  55.769  32.370  1.00 31.08   C
ATOM   3055  CB  SER B 208       8.237  55.137  33.703  1.00 31.10   C
ATOM   3056  OG  SER B 208       7.066  54.326  33.612  1.00 33.52   O
ATOM   3057  C   SER B 208      10.210  55.779  32.257  1.00 29.82   C
ATOM   3058  O   SER B 208      10.882  55.207  33.109  1.00 29.02   O
ATOM   3059  N   ASN B 209      10.744  56.460  31.234  1.00 27.69   N
ATOM   3060  CA  ASN B 209      12.174  56.668  31.145  1.00 26.65   C
ATOM   3061  CB  ASN B 209      12.701  57.290  32.448  1.00 25.16   C
ATOM   3062  CG  ASN B 209      13.899  58.205  32.222  1.00 23.61   C
ATOM   3063  OD1 ASN B 209      14.216  58.600  31.091  1.00 17.08   O
ATOM   3064  ND2 ASN B 209      14.559  58.562  33.310  1.00 19.10   N
ATOM   3065  C   ASN B 209      12.941  55.385  30.917  1.00 26.65   C
ATOM   3066  O   ASN B 209      14.142  55.326  31.235  1.00 26.38   O
ATOM   3067  N   PHE B 210      12.254  54.368  30.397  1.00 25.05   N
ATOM   3068  CA  PHE B 210      12.901  53.114  30.075  1.00 25.26   C
ATOM   3069  CB  PHE B 210      11.979  51.932  30.402  1.00 25.24   C
ATOM   3070  CG  PHE B 210      12.578  50.588  30.114  1.00 23.45   C
ATOM   3071  CD1 PHE B 210      13.787  50.213  30.689  1.00 20.28   C
ATOM   3072  CE1 PHE B 210      14.358  48.965  30.448  1.00 20.81   C
ATOM   3073  CZ  PHE B 210      13.741  48.078  29.603  1.00 18.43   C
ATOM   3074  CE2 PHE B 210      12.529  48.451  28.991  1.00 22.42   C
ATOM   3075  CD2 PHE B 210      11.939  49.697  29.268  1.00 19.80   C
ATOM   3076  C   PHE B 210      13.410  53.110  28.626  1.00 25.66   C
ATOM   3077  O   PHE B 210      12.641  53.314  27.684  1.00 24.55   O
ATOM   3078  N   LEU B 211      14.743  52.991  28.455  1.00 25.15   N
ATOM   3079  CA  LEU B 211      15.360  52.938  27.104  1.00 23.55   C
ATOM   3080  CB  LEU B 211      15.322  51.499  26.545  1.00 23.47   C
ATOM   3081  CG  LEU B 211      16.010  50.295  27.276  1.00 23.61   C
ATOM   3082  CD1 LEU B 211      15.689  48.927  26.579  1.00 16.55   C
ATOM   3083  CD2 LEU B 211      17.585  50.441  27.478  1.00 19.41   C
ATOM   3084  C   LEU B 211      14.838  53.917  26.042  1.00 23.33   C
ATOM   3085  O   LEU B 211      14.597  53.550  24.910  1.00 23.32   O
ATOM   3086  N   PRO B 212      14.709  55.187  26.357  1.00 23.83   N
ATOM   3087  CA  PRO B 212      14.196  56.157  25.388  1.00 24.60   C
ATOM   3088  CB  PRO B 212      14.383  57.473  26.114  1.00 24.91   C
ATOM   3089  CG  PRO B 212      15.325  57.147  27.107  1.00 24.30   C
ATOM   3090  CD  PRO B 212      14.952  55.807  27.650  1.00 23.09   C
ATOM   3091  C   PRO B 212      14.905  56.227  24.053  1.00 25.49   C
ATOM   3092  O   PRO B 212      14.271  56.286  22.994  1.00 24.07   O
ATOM   3093  N   TRP B 213      16.233  56.308  24.111  1.00 25.92   N
ATOM   3094  CA  TRP B 213      17.005  56.301  22.894  1.00 24.64   C
ATOM   3095  CB  TRP B 213      18.482  56.453  23.228  1.00 24.46   C
```

Figure 2-57

```
ATOM   3096  CG  TRP B 213      19.301  56.348  22.037  1.00 25.38  C
ATOM   3097  CD1 TRP B 213      19.736  55.216  21.452  1.00 23.91  C
ATOM   3098  NE1 TRP B 213      20.473  55.515  20.333  1.00 23.06  N
ATOM   3099  CE2 TRP B 213      20.536  56.869  20.179  1.00 24.51  C
ATOM   3100  CD2 TRP B 213      19.803  57.438  21.233  1.00 26.82  C
ATOM   3101  CE3 TRP B 213      19.691  58.830  21.294  1.00 25.20  C
ATOM   3102  CZ3 TRP B 213      20.297  59.590  20.293  1.00 29.32  C
ATOM   3103  CH2 TRP B 213      21.019  58.981  19.268  1.00 28.57  C
ATOM   3104  CZ2 TRP B 213      21.133  57.627  19.186  1.00 26.08  C
ATOM   3105  C   TRP B 213      16.821  54.970  22.185  1.00 24.43  C
ATOM   3106  O   TRP B 213      16.424  54.910  20.985  1.00 23.38  O
ATOM   3107  N   GLN B 214      17.093  53.889  22.918  1.00 23.77  N
ATOM   3108  CA  GLN B 214      17.159  52.588  22.241  1.00 24.01  C
ATOM   3109  CB  GLN B 214      17.973  51.515  23.000  1.00 24.64  C
ATOM   3110  CG  GLN B 214      19.311  52.032  23.640  1.00 23.98  C
ATOM   3111  CD  GLN B 214      19.066  52.650  24.989  1.00 26.63  C
ATOM   3112  OE1 GLN B 214      18.037  53.335  25.199  1.00 27.84  O
ATOM   3113  NE2 GLN B 214      19.983  52.420  25.925  1.00 26.03  N
ATOM   3114  C   GLN B 214      15.847  52.055  21.851  1.00 23.50  C
ATOM   3115  O   GLN B 214      15.781  51.351  20.885  1.00 23.81  O
ATOM   3116  N   GLY B 215      14.775  52.434  22.540  1.00 24.90  N
ATOM   3117  CA  GLY B 215      13.454  51.881  22.232  1.00 24.47  C
ATOM   3118  C   GLY B 215      12.644  52.797  21.294  1.00 25.00  C
ATOM   3119  O   GLY B 215      11.436  52.582  21.068  1.00 23.84  O
ATOM   3120  N   ALA B 216      13.305  53.783  20.703  1.00 24.52  N
ATOM   3121  CA  ALA B 216      12.560  54.748  19.859  1.00 25.76  C
ATOM   3122  CB  ALA B 216      13.470  55.834  19.339  1.00 24.87  C
ATOM   3123  C   ALA B 216      11.747  54.144  18.721  1.00 26.66  C
ATOM   3124  O   ALA B 216      10.717  54.715  18.302  1.00 27.55  O
ATOM   3125  N   TYR B 217      12.166  52.989  18.225  1.00 26.49  N
ATOM   3126  CA  TYR B 217      11.466  52.385  17.114  1.00 26.25  C
ATOM   3127  CB  TYR B 217      12.406  52.145  15.931  1.00 26.48  C
ATOM   3128  CG  TYR B 217      12.888  53.380  15.170  1.00 28.05  C
ATOM   3129  CD1 TYR B 217      14.180  53.864  15.345  1.00 30.43  C
ATOM   3130  CE1 TYR B 217      14.633  54.979  14.675  1.00 33.75  C
ATOM   3131  CZ  TYR B 217      13.807  55.616  13.777  1.00 37.31  C
ATOM   3132  OH  TYR B 217      14.294  56.707  13.094  1.00 41.79  O
ATOM   3133  CE2 TYR B 217      12.512  55.160  13.568  1.00 34.54  C
ATOM   3134  CD2 TYR B 217      12.063  54.040  14.265  1.00 31.01  C
ATOM   3135  C   TYR B 217      10.798  51.078  17.486  1.00 26.26  C
ATOM   3136  O   TYR B 217      10.359  50.330  16.609  1.00 26.74  O
ATOM   3137  N   SER B 218      10.730  50.766  18.760  1.00 25.98  N
ATOM   3138  CA  SER B 218      10.149  49.499  19.107  1.00 27.89  C
ATOM   3139  CB  SER B 218      10.553  49.055  20.518  1.00 28.03  C
ATOM   3140  OG  SER B 218      11.951  49.120  20.714  1.00 30.82  O
ATOM   3141  C   SER B 218       8.636  49.417  19.035  1.00 28.20  C
ATOM   3142  O   SER B 218       7.897  50.392  19.210  1.00 29.00  O
ATOM   3143  N   GLU B 219       8.190  48.209  18.782  1.00 29.23  N
ATOM   3144  CA  GLU B 219       6.795  47.857  18.948  1.00 29.73  C
ATOM   3145  CB  GLU B 219       6.584  46.485  18.332  1.00 29.88  C
ATOM   3146  CG  GLU B 219       6.776  46.481  16.815  1.00 31.45  C
ATOM   3147  CD  GLU B 219       5.629  47.133  16.045  1.00 34.52  C
ATOM   3148  OE1 GLU B 219       4.475  47.192  16.550  1.00 34.17  O
ATOM   3149  OE2 GLU B 219       5.888  47.571  14.909  1.00 37.94  O
ATOM   3150  C   GLU B 219       6.504  47.863  20.451  1.00 30.16  C
ATOM   3151  O   GLU B 219       7.330  47.459  21.251  1.00 29.12  O
ATOM   3152  N   LEU B 220       5.330  48.353  20.841  1.00 31.96  N
```

Figure 2-58

```
ATOM   3153  CA  LEU B 220       4.974  48.437  22.239  1.00 33.04   C
ATOM   3154  CB  LEU B 220       4.511  49.840  22.540  1.00 32.48   C
ATOM   3155  CG  LEU B 220       5.575  50.878  22.258  1.00 32.18   C
ATOM   3156  CD1 LEU B 220       4.948  52.269  22.265  1.00 34.30   C
ATOM   3157  CD2 LEU B 220       6.683  50.762  23.287  1.00 31.19   C
ATOM   3158  C   LEU B 220       3.864  47.449  22.539  1.00 34.63   C
ATOM   3159  O   LEU B 220       3.001  47.211  21.693  1.00 36.62   O
ATOM   3160  N   TYR B 221       3.856  46.893  23.741  1.00 34.97   N
ATOM   3161  CA  TYR B 221       2.837  45.903  24.086  1.00 35.96   C
ATOM   3162  CB  TYR B 221       3.384  44.470  23.944  1.00 35.97   C
ATOM   3163  CG  TYR B 221       2.376  43.407  24.315  1.00 37.45   C
ATOM   3164  CD1 TYR B 221       2.327  42.897  25.594  1.00 37.61   C
ATOM   3165  CE1 TYR B 221       1.419  41.967  25.932  1.00 39.42   C
ATOM   3166  CZ  TYR B 221       0.532  41.504  24.992  1.00 40.33   C
ATOM   3167  OH  TYR B 221      -0.378  40.536  25.348  1.00 44.72   O
ATOM   3168  CE2 TYR B 221       0.554  41.977  23.723  1.00 38.97   C
ATOM   3169  CD2 TYR B 221       1.468  42.928  23.385  1.00 37.44   C
ATOM   3170  C   TYR B 221       2.334  46.131  25.504  1.00 36.43   C
ATOM   3171  O   TYR B 221       3.068  45.990  26.467  1.00 36.83   O
ATOM   3172  N   PHE B 222       1.060  46.463  25.641  1.00 37.72   N
ATOM   3173  CA  PHE B 222       0.518  46.755  26.953  1.00 38.21   C
ATOM   3174  CB  PHE B 222      -0.196  48.099  26.873  1.00 37.79   C
ATOM   3175  CG  PHE B 222       0.751  49.250  26.607  1.00 36.53   C
ATOM   3176  CD1 PHE B 222       1.346  49.926  27.648  1.00 31.94   C
ATOM   3177  CE1 PHE B 222       2.234  50.958  27.409  1.00 32.59   C
ATOM   3178  CZ  PHE B 222       2.551  51.318  26.122  1.00 30.86   C
ATOM   3179  CE2 PHE B 222       1.977  50.653  25.071  1.00 33.95   C
ATOM   3180  CD2 PHE B 222       1.089  49.609  25.310  1.00 35.30   C
ATOM   3181  C   PHE B 222      -0.384  45.642  27.434  1.00 39.33   C
ATOM   3182  O   PHE B 222      -1.113  45.057  26.644  1.00 40.68   O
ATOM   3183  N   THR B 223      -0.323  45.308  28.715  1.00 40.02   N
ATOM   3184  CA  THR B 223      -1.231  44.302  29.247  1.00 40.45   C
ATOM   3185  CB  THR B 223      -0.532  42.953  29.422  1.00 41.35   C
ATOM   3186  OG1 THR B 223      -1.484  41.921  29.804  1.00 38.39   O
ATOM   3187  CG2 THR B 223       0.469  43.048  30.588  1.00 39.03   C
ATOM   3188  C   THR B 223      -1.751  44.746  30.596  1.00 41.40   C
ATOM   3189  O   THR B 223      -1.077  45.454  31.347  1.00 41.71   O
ATOM   3190  N   ASP B 224      -2.939  44.281  30.925  1.00 41.56   N
ATOM   3191  CA  ASP B 224      -3.536  44.664  32.173  1.00 42.36   C
ATOM   3192  CB  ASP B 224      -5.062  44.679  32.060  1.00 43.31   C
ATOM   3193  CG  ASP B 224      -5.560  46.025  31.635  1.00 45.93   C
ATOM   3194  OD1 ASP B 224      -6.790  46.241  31.478  1.00 49.99   O
ATOM   3195  OD2 ASP B 224      -4.757  46.956  31.443  1.00 49.57   O
ATOM   3196  C   ASP B 224      -3.039  43.786  33.277  1.00 41.32   C
ATOM   3197  O   ASP B 224      -3.063  44.170  34.433  1.00 40.70   O
ATOM   3198  N   THR B 225      -2.529  42.632  32.878  1.00 41.37   N
ATOM   3199  CA  THR B 225      -1.965  41.627  33.771  1.00 41.23   C
ATOM   3200  CB  THR B 225      -1.219  40.612  32.920  1.00 41.37   C
ATOM   3201  OG1 THR B 225      -1.885  40.458  31.661  1.00 40.10   O
ATOM   3202  CG2 THR B 225      -1.215  39.219  33.559  1.00 39.84   C
ATOM   3203  C   THR B 225      -0.978  42.171  34.779  1.00 42.28   C
ATOM   3204  O   THR B 225      -0.323  43.161  34.505  1.00 43.19   O
ATOM   3205  N   LEU B 226      -0.816  41.465  35.906  1.00 42.49   N
ATOM   3206  CA  LEU B 226       0.097  41.852  36.966  1.00 42.82   C
ATOM   3207  CB  LEU B 226      -0.525  41.554  38.332  1.00 43.22   C
ATOM   3208  CG  LEU B 226      -1.726  42.359  38.817  1.00 44.19   C
ATOM   3209  CD1 LEU B 226      -1.741  42.303  40.326  1.00 47.33   C
```

Figure 2-59

```
ATOM   3210  CD2 LEU B 226      -1.722  43.797  38.372  1.00 43.61   C
ATOM   3211  C   LEU B 226       1.395  41.072  36.859  1.00 42.98   C
ATOM   3212  O   LEU B 226       1.370  39.845  36.727  1.00 42.94   O
ATOM   3213  N   TRP B 227       2.531  41.758  37.002  1.00 42.19   N
ATOM   3214  CA  TRP B 227       3.814  41.098  36.750  1.00 41.89   C
ATOM   3215  CB  TRP B 227       5.032  41.923  37.208  1.00 41.57   C
ATOM   3216  CG  TRP B 227       6.302  41.200  36.998  1.00 38.01   C
ATOM   3217  CD1 TRP B 227       7.200  40.823  37.950  1.00 38.24   C
ATOM   3218  NE1 TRP B 227       8.262  40.159  37.381  1.00 36.72   N
ATOM   3219  CE2 TRP B 227       8.050  40.077  36.034  1.00 37.27   C
ATOM   3220  CD2 TRP B 227       6.818  40.720  35.760  1.00 39.16   C
ATOM   3221  CE3 TRP B 227       6.379  40.784  34.433  1.00 40.35   C
ATOM   3222  CZ3 TRP B 227       7.163  40.210  33.448  1.00 41.59   C
ATOM   3223  CH2 TRP B 227       8.369  39.569  33.766  1.00 39.67   C
ATOM   3224  CZ2 TRP B 227       8.825  39.498  35.051  1.00 37.32   C
ATOM   3225  C   TRP B 227       3.930  39.669  37.245  1.00 42.56   C
ATOM   3226  O   TRP B 227       4.289  38.795  36.484  1.00 42.59   O
ATOM   3227  N   PRO B 228       3.666  39.421  38.523  1.00 43.61   N
ATOM   3228  CA  PRO B 228       3.784  38.054  39.064  1.00 43.84   C
ATOM   3229  CB  PRO B 228       3.373  38.214  40.528  1.00 44.07   C
ATOM   3230  CG  PRO B 228       3.621  39.657  40.811  1.00 44.34   C
ATOM   3231  CD  PRO B 228       3.250  40.399  39.542  1.00 43.00   C
ATOM   3232  C   PRO B 228       2.881  37.038  38.338  1.00 44.25   C
ATOM   3233  O   PRO B 228       3.113  35.848  38.484  1.00 44.28   O
ATOM   3234  N   ASP B 229       1.895  37.492  37.561  1.00 44.69   N
ATOM   3235  CA  ASP B 229       1.104  36.564  36.740  1.00 45.13   C
ATOM   3236  CB  ASP B 229      -0.379  36.929  36.714  1.00 44.75   C
ATOM   3237  CG  ASP B 229      -1.017  36.800  38.073  1.00 44.76   C
ATOM   3238  OD1 ASP B 229      -0.550  35.935  38.856  1.00 43.39   O
ATOM   3239  OD2 ASP B 229      -1.968  37.523  38.442  1.00 43.60   O
ATOM   3240  C   ASP B 229       1.621  36.487  35.308  1.00 45.87   C
ATOM   3241  O   ASP B 229       1.113  35.674  34.499  1.00 46.14   O
ATOM   3242  N   PHE B 230       2.606  37.331  34.975  1.00 44.87   N
ATOM   3243  CA  PHE B 230       3.173  37.273  33.639  1.00 43.94   C
ATOM   3244  CB  PHE B 230       4.002  38.531  33.296  1.00 43.27   C
ATOM   3245  CG  PHE B 230       4.175  38.744  31.819  1.00 40.87   C
ATOM   3246  CD1 PHE B 230       5.151  38.060  31.122  1.00 37.77   C
ATOM   3247  CE1 PHE B 230       5.294  38.217  29.773  1.00 34.89   C
ATOM   3248  CZ  PHE B 230       4.460  39.054  29.078  1.00 34.79   C
ATOM   3249  CE2 PHE B 230       3.471  39.743  29.740  1.00 37.11   C
ATOM   3250  CD2 PHE B 230       3.321  39.577  31.113  1.00 39.77   C
ATOM   3251  C   PHE B 230       4.034  36.025  33.590  1.00 44.31   C
ATOM   3252  O   PHE B 230       4.981  35.893  34.335  1.00 43.68   O
ATOM   3253  N   ASP B 231       3.691  35.106  32.702  1.00 45.12   N
ATOM   3254  CA  ASP B 231       4.399  33.840  32.583  1.00 45.61   C
ATOM   3255  CB  ASP B 231       3.566  32.729  33.229  1.00 45.86   C
ATOM   3256  CG  ASP B 231       2.183  32.627  32.635  1.00 46.10   C
ATOM   3257  OD1 ASP B 231       2.034  32.915  31.425  1.00 42.50   O
ATOM   3258  OD2 ASP B 231       1.188  32.271  33.310  1.00 46.84   O
ATOM   3259  C   ASP B 231       4.662  33.482  31.125  1.00 45.96   C
ATOM   3260  O   ASP B 231       4.371  34.265  30.228  1.00 46.21   O
ATOM   3261  N   GLU B 232       5.187  32.284  30.895  1.00 46.12   N
ATOM   3262  CA  GLU B 232       5.508  31.836  29.553  1.00 46.59   C
ATOM   3263  CB  GLU B 232       6.014  30.391  29.545  1.00 46.85   C
ATOM   3264  CG  GLU B 232       6.250  29.884  28.130  1.00 47.86   C
ATOM   3265  CD  GLU B 232       6.843  28.495  28.106  1.00 51.41   C
ATOM   3266  OE1 GLU B 232       7.080  27.965  26.993  1.00 52.42   O
```

Figure 2-60

```
ATOM   3267  OE2 GLU B 232       7.068  27.940  29.213  1.00 52.82   O
ATOM   3268  C   GLU B 232       4.363  31.980  28.569  1.00 46.41   C
ATOM   3269  O   GLU B 232       4.578  32.364  27.426  1.00 46.40   O
ATOM   3270  N   ALA B 233       3.146  31.666  28.991  1.00 46.36   N
ATOM   3271  CA  ALA B 233       2.019  31.817  28.074  1.00 46.32   C
ATOM   3272  CB  ALA B 233       0.760  31.217  28.646  1.00 46.83   C
ATOM   3273  C   ALA B 233       1.805  33.279  27.764  1.00 46.33   C
ATOM   3274  O   ALA B 233       1.423  33.630  26.652  1.00 46.81   O
ATOM   3275  N   ALA B 234       2.053  34.124  28.756  1.00 46.14   N
ATOM   3276  CA  ALA B 234       1.950  35.564  28.607  1.00 45.96   C
ATOM   3277  CB  ALA B 234       2.117  36.244  29.948  1.00 45.69   C
ATOM   3278  C   ALA B 234       3.026  36.058  27.643  1.00 46.02   C
ATOM   3279  O   ALA B 234       2.754  36.859  26.750  1.00 45.94   O
ATOM   3280  N   LEU B 235       4.245  35.582  27.834  1.00 45.51   N
ATOM   3281  CA  LEU B 235       5.335  35.974  26.970  1.00 45.96   C
ATOM   3282  CB  LEU B 235       6.608  35.228  27.353  1.00 45.21   C
ATOM   3283  CG  LEU B 235       7.829  35.676  26.564  1.00 46.23   C
ATOM   3284  CD1 LEU B 235       8.143  37.128  26.929  1.00 44.35   C
ATOM   3285  CD2 LEU B 235       9.035  34.761  26.822  1.00 43.84   C
ATOM   3286  C   LEU B 235       4.962  35.709  25.513  1.00 46.73   C
ATOM   3287  O   LEU B 235       5.058  36.612  24.665  1.00 46.82   O
ATOM   3288  N   GLN B 236       4.488  34.495  25.229  1.00 47.36   N
ATOM   3289  CA  GLN B 236       4.155  34.118  23.851  1.00 48.92   C
ATOM   3290  CB  GLN B 236       3.961  32.587  23.688  1.00 50.34   C
ATOM   3291  CG  GLN B 236       3.815  32.122  22.207  1.00 54.21   C
ATOM   3292  CD  GLN B 236       3.256  30.682  22.042  1.00 60.15   C
ATOM   3293  OE1 GLN B 236       3.358  29.853  22.961  1.00 61.66   O
ATOM   3294  NE2 GLN B 236       2.672  30.394  20.864  1.00 60.72   N
ATOM   3295  C   GLN B 236       2.965  34.896  23.276  1.00 48.45   C
ATOM   3296  O   GLN B 236       2.919  35.137  22.072  1.00 47.51   O
ATOM   3297  N   GLU B 237       2.016  35.306  24.119  1.00 48.40   N
ATOM   3298  CA  GLU B 237       0.889  36.093  23.599  1.00 48.84   C
ATOM   3299  CB  GLU B 237      -0.246  36.271  24.623  1.00 49.21   C
ATOM   3300  CG  GLU B 237      -1.556  36.779  24.015  1.00 52.86   C
ATOM   3301  CD  GLU B 237      -2.698  37.035  25.032  1.00 56.95   C
ATOM   3302  OE1 GLU B 237      -3.671  37.760  24.671  1.00 58.46   O
ATOM   3303  OE2 GLU B 237      -2.642  36.527  26.177  1.00 55.69   O
ATOM   3304  C   GLU B 237       1.397  37.440  23.111  1.00 47.74   C
ATOM   3305  O   GLU B 237       0.877  38.008  22.169  1.00 47.94   O
ATOM   3306  N   ALA B 238       2.434  37.953  23.747  1.00 47.20   N
ATOM   3307  CA  ALA B 238       2.993  39.213  23.297  1.00 46.53   C
ATOM   3308  CB  ALA B 238       3.869  39.844  24.362  1.00 45.61   C
ATOM   3309  C   ALA B 238       3.765  38.934  22.012  1.00 46.05   C
ATOM   3310  O   ALA B 238       3.634  39.651  21.039  1.00 45.12   O
ATOM   3311  N   ILE B 239       4.554  37.869  21.998  1.00 46.79   N
ATOM   3312  CA  ILE B 239       5.255  37.538  20.771  1.00 47.47   C
ATOM   3313  CB  ILE B 239       6.021  36.253  20.920  1.00 47.51   C
ATOM   3314  CG1 ILE B 239       7.203  36.483  21.849  1.00 47.99   C
ATOM   3315  CD1 ILE B 239       7.913  35.251  22.191  1.00 49.20   C
ATOM   3316  CG2 ILE B 239       6.505  35.795  19.589  1.00 47.14   C
ATOM   3317  C   ILE B 239       4.251  37.437  19.630  1.00 47.96   C
ATOM   3318  O   ILE B 239       4.449  38.026  18.572  1.00 47.90   O
ATOM   3319  N   LEU B 240       3.156  36.721  19.879  1.00 48.95   N
ATOM   3320  CA  LEU B 240       2.093  36.511  18.902  1.00 49.42   C
ATOM   3321  CB  LEU B 240       0.910  35.819  19.576  1.00 49.84   C
ATOM   3322  CG  LEU B 240       0.096  34.794  18.759  1.00 52.28   C
ATOM   3323  CD1 LEU B 240      -0.376  33.632  19.658  1.00 52.89   C
```

Figure 2-61

```
ATOM   3324  CD2 LEU B 240      -1.090  35.430  18.001  1.00 54.23   C
ATOM   3325  C   LEU B 240       1.647  37.850  18.320  1.00 49.69   C
ATOM   3326  O   LEU B 240       1.601  38.023  17.097  1.00 49.49   O
ATOM   3327  N   ALA B 241       1.342  38.802  19.204  1.00 49.32   N
ATOM   3328  CA  ALA B 241       0.867  40.115  18.779  1.00 49.30   C
ATOM   3329  CB  ALA B 241       0.419  40.911  19.974  1.00 49.37   C
ATOM   3330  C   ALA B 241       1.934  40.877  17.998  1.00 49.21   C
ATOM   3331  O   ALA B 241       1.639  41.642  17.071  1.00 48.88   O
ATOM   3332  N   TYR B 242       3.184  40.656  18.376  1.00 49.22   N
ATOM   3333  CA  TYR B 242       4.291  41.293  17.690  1.00 48.81   C
ATOM   3334  CB  TYR B 242       5.571  40.900  18.362  1.00 47.16   C
ATOM   3335  CG  TYR B 242       6.803  41.306  17.631  1.00 45.05   C
ATOM   3336  CD1 TYR B 242       7.345  42.561  17.823  1.00 43.05   C
ATOM   3337  CE1 TYR B 242       8.490  42.937  17.203  1.00 42.67   C
ATOM   3338  CZ  TYR B 242       9.121  42.065  16.337  1.00 43.46   C
ATOM   3339  OH  TYR B 242      10.274  42.491  15.726  1.00 43.87   O
ATOM   3340  CE2 TYR B 242       8.607  40.800  16.114  1.00 43.33   C
ATOM   3341  CD2 TYR B 242       7.459  40.422  16.771  1.00 43.67   C
ATOM   3342  C   TYR B 242       4.319  40.854  16.238  1.00 49.92   C
ATOM   3343  O   TYR B 242       4.527  41.662  15.345  1.00 49.55   O
ATOM   3344  N   ASN B 243       4.080  39.574  15.995  1.00 51.50   N
ATOM   3345  CA  ASN B 243       4.149  39.069  14.629  1.00 53.67   C
ATOM   3346  CB  ASN B 243       4.254  37.561  14.629  1.00 54.26   C
ATOM   3347  CG  ASN B 243       5.405  37.090  15.438  1.00 55.57   C
ATOM   3348  OD1 ASN B 243       6.521  37.557  15.252  1.00 57.46   O
ATOM   3349  ND2 ASN B 243       5.149  36.178  16.368  1.00 57.92   N
ATOM   3350  C   ASN B 243       2.990  39.501  13.769  1.00 54.45   C
ATOM   3351  O   ASN B 243       3.081  39.488  12.554  1.00 54.58   O
ATOM   3352  N   ALA B 244       1.899  39.887  14.412  1.00 55.73   N
ATOM   3353  CA  ALA B 244       0.722  40.356  13.702  1.00 56.68   C
ATOM   3354  CB  ALA B 244      -0.500  40.194  14.577  1.00 56.79   C
ATOM   3355  C   ALA B 244       0.855  41.809  13.251  1.00 57.13   C
ATOM   3356  O   ALA B 244       0.026  42.313  12.493  1.00 57.97   O
ATOM   3357  N   ARG B 245       1.881  42.508  13.717  1.00 57.42   N
ATOM   3358  CA  ARG B 245       2.031  43.897  13.297  1.00 57.08   C
ATOM   3359  CB  ARG B 245       2.860  44.683  14.310  1.00 56.74   C
ATOM   3360  CG  ARG B 245       2.424  44.463  15.764  1.00 54.80   C
ATOM   3361  CD  ARG B 245       1.517  45.531  16.374  1.00 50.66   C
ATOM   3362  NE  ARG B 245       1.320  45.300  17.799  1.00 44.27   N
ATOM   3363  CZ  ARG B 245       1.949  45.969  18.762  1.00 43.68   C
ATOM   3364  NH1 ARG B 245       2.816  46.947  18.458  1.00 41.51   N
ATOM   3365  NH2 ARG B 245       1.707  45.668  20.039  1.00 39.80   N
ATOM   3366  C   ARG B 245       2.628  43.964  11.881  1.00 57.51   C
ATOM   3367  O   ARG B 245       3.221  43.027  11.348  1.00 57.54   O
ATOM   3368  OXT ARG B 245       2.532  44.951  11.150  1.00 57.67   N
ATOM   3369  O   HOH W 301      14.224  63.821  21.870  1.00 24.85   O
ATOM   3370  O   HOH W 302      13.835  51.188  18.590  1.00 26.15   O
ATOM   3371  O   HOH W 303      23.569  51.055  22.560  1.00 24.42   O
ATOM   3372  O   HOH W 304     -15.712  67.436  16.063  1.00 25.93   O
ATOM   3373  O   HOH W 305      11.511  56.212  23.136  1.00 25.78   O
ATOM   3374  O   HOH W 306      28.260  37.972  32.519  1.00 25.10   O
ATOM   3375  O   HOH W 307      14.925  65.146  33.299  1.00 30.46   O
ATOM   3376  O   HOH W 308      -1.174  56.855   5.192  1.00 32.48   O
ATOM   3377  O   HOH W 309      15.043  68.104  30.149  1.00 32.01   O
ATOM   3378  O   HOH W 310      13.485  71.100  25.434  1.00 30.88   O
ATOM   3379  O   HOH W 311       2.368  51.634  38.578  1.00 37.66   O
ATOM   3380  O   HOH W 312      22.232  53.935  17.949  1.00 29.18   O
```

Figure 2-62

```
ATOM   3381  O   HOH W 313       1.084  65.125  33.294  1.00 28.16   O
ATOM   3382  O   HOH W 314      11.098  56.123  27.799  1.00 33.88   O
ATOM   3383  O   HOH W 315      14.222  27.778  19.716  1.00 41.03   O
ATOM   3384  O   HOH W 316      19.205  25.420  41.011  1.00 38.62   O
ATOM   3385  O   HOH W 317      17.071  57.013  13.573  1.00 37.65   O
ATOM   3386  O   HOH W 318       8.332  59.814  -2.926  1.00 43.12   O
ATOM   3387  O   HOH W 319      18.956  55.692  39.467  1.00 37.89   O
ATOM   3388  O   HOH W 320      34.108  34.471  35.840  1.00 30.97   O
ATOM   3389  O   HOH W 321     -13.652  71.852  16.113  1.00 30.06   O
ATOM   3390  O   HOH W 322      26.871  26.672  39.838  1.00 38.32   O
ATOM   3391  O   HOH W 323       2.769  79.918  25.863  1.00 37.33   O
ATOM   3392  O   HOH W 324      31.076  56.263  14.431  1.00 40.35   O
ATOM   3393  O   HOH W 325      21.917  35.624  23.478  1.00 37.60   O
ATOM   3394  O   HOH W 326      -0.796  69.107  32.281  1.00 32.78   O
ATOM   3395  O   HOH W 327      10.645  57.769  25.185  1.00 42.01   O
ATOM   3396  O   HOH W 328       8.192  53.433  19.657  1.00 38.80   O
ATOM   3397  O   HOH W 329      17.440  58.463  36.930  1.00 40.46   O
ATOM   3398  O   HOH W 330      33.910  33.489  27.352  1.00 41.76   O
ATOM   3399  O   HOH W 331      29.730  34.901  26.421  1.00 46.55   O
ATOM   3400  O   HOH W 332      33.686  39.607  34.444  1.00 41.77   O
ATOM   3401  O   HOH W 333      14.933  40.936  15.748  1.00 47.38   O
ATOM   3402  O   HOH W 334      -4.897  43.250  28.713  1.00 47.40   O
ATOM   3403  O   HOH W 335       4.887  86.032  22.815  1.00 47.19   O
ATOM   3404  O   HOH W 336       7.099  80.807  22.742  1.00 47.80   O
ATOM   3405  O   HOH W 337      -1.464  38.069  21.001  1.00 51.91   O
ATOM   3406  O   HOH W 338      16.440  61.818  37.239  1.00 49.88   O
ATOM   3407  O   HOH W 339      14.708  60.696  11.364  1.00 51.81   O
ATOM   3408  O   HOH W 340       6.610  90.189  21.258  1.00 37.51   O
ATOM   3409  O   HOH W 341       9.826  29.674  37.961  1.00 57.75   O
ATOM   3410  O   HOH W 342       5.079  62.992  -4.894  1.00 55.05   O
ATOM   3411  O   HOH W 343      -4.884  51.667  19.085  1.00 78.31   O
ATOM   3412  O   HOH W 344      18.432  32.224  23.475  1.00 48.07   O
ATOM   3413  O   HOH W 345       5.216  66.664  -6.536  1.00 48.32   O
ATOM   3414  O   HOH W 346      33.325  53.793  25.367  1.00 47.49   O
ATOM   3415  O   HOH W 347      -3.753  79.905  26.514  1.00 52.44   O
ATOM   3416  O   HOH W 348      14.825  52.163  11.399  1.00 65.10   O
ATOM   3417  O   HOH W 349      18.450  22.964  36.956  1.00 54.06   O
ATOM   3418  O   HOH W 350       7.522  41.595  13.069  1.00 57.75   O
ATOM   3419  O   HOH W 351      -1.912  65.885   8.146  1.00 55.79   O
ATOM   3420  O   HOH W 352      16.951  35.926  16.983  1.00 46.68   O
ATOM   3421  O   HOH W 353      21.249  74.367  32.621  1.00 60.16   O
ATOM   3422  O   HOH W 354      -9.102  50.743  20.528  1.00 54.04   O
ATOM   3423  O   HOH W 355       9.904  55.128  10.304  1.00 57.95   O
ATOM   3424  O   HOH W 356      -0.207  46.679  24.030  1.00 45.82   O
ATOM   3425  O   HOH W 357      15.796  27.714  41.334  1.00 51.32   O
ATOM   3426  O   HOH W 358       0.149  39.250  26.948  1.00 53.35   O
ATOM   3427  O   HOH W 359      24.437  60.006  35.667  1.00 55.80   O
ATOM   3428  O   HOH W 360       4.287  58.978  10.631  1.00 60.99   O
ATOM   3429  O   HOH W 361       8.643  80.111  20.686  1.00 43.53   O
ATOM   3430  O   HOH W 362       0.496  30.071  31.543  1.00 60.54   O
ATOM   3431  O   HOH W 363       9.626  41.652  39.466  1.00 47.51   O
ATOM   3432  O   HOH W 364      11.994  44.893  15.026  1.00 60.32   O
ATOM   3433  O   HOH W 365       8.116  62.065  -6.689  1.00 55.61   O
ATOM   3434  O   HOH W 366      25.510  27.453  22.298  1.00 60.54   O
ATOM   3435  O   HOH W 367       3.522  65.832  -0.412  1.00 54.77   O
ATOM   3436  O   HOH W 368       5.439  70.882   0.738  1.00119.10   O
ATOM   3437  O   HOH W 369       3.612  66.583  -4.462  1.00101.11   O
```

Figure 2-63

```
ATOM   3438  O   HOH W 370       3.599  68.176  -1.771  1.00 58.59   O
ATOM   3439  O   HOH W 371      -3.296  37.480  40.877  1.00 88.62   O
ATOM   3440  O   HOH W 372      -3.269  43.168  25.582  1.00 51.34   O
ATOM   3441  O   HOH W 373       5.407  57.341  49.505  1.00 66.80   O
ATOM   3442  O   HOH W 374      -2.152  53.030   0.450  1.00 72.53   O
ATOM   3443  O   HOH W 375     -18.889  71.091  19.576  1.00 67.66   O
ATOM   3444  O   HOH W 376      12.970  51.434   7.745  1.00 65.79   O
ATOM   3445  O   HOH W 377      12.605  51.601  10.522  1.00 68.28   O
ATOM   3446  O   HOH W 378     -13.428  79.224  14.167  1.00 46.23   O
ATOM   3447  O   HOH W 379     -14.981  80.343   9.822  1.00 76.04   O
ATOM   3448  O   HOH W 380      18.998  77.536  21.320  1.00 47.42   O
ATOM   3449  O   HOH W 381       6.160  57.027  28.262  1.00 35.89   O
ATOM   3450  O   HOH W 382      -8.580  53.333  22.637  1.00 42.88   O
ATOM   3451  O   HOH W 383     -11.820  49.780  17.120  1.00 52.37   O
ATOM   3452  O   HOH W 384     -14.370  58.966  14.957  1.00 58.98   O
ATOM   3453  O   HOH W 385       1.543  47.051   9.068  1.00 42.04   O
ATOM   3454  O   HOH W 386      -1.020  43.926   9.575  1.00 56.35   O
ATOM   3455  O   HOH W 387       1.068  48.111  13.182  1.00 55.61   O
ATOM   3456  O   HOH W 388      -2.342  67.388  33.510  1.00 40.51   O
ATOM   3457  O   HOH W 389       1.635  69.559  32.785  1.00 39.45   O
ATOM   3458  O   HOH W 390      13.760  76.563  35.278  1.00 53.74   O
ATOM   3459  O   HOH W 391      10.776  79.077  25.620  1.00 63.64   O
ATOM   3460  O   HOH W 392      21.224  62.700  35.605  1.00 33.68   O
ATOM   3461  O   HOH W 393      24.451  78.202  22.211  1.00 44.88   O
ATOM   3462  O   HOH W 394      31.555  79.671  18.577  1.00 54.65   O
ATOM   3463  O   HOH W 395       7.578  63.259   4.412  1.00 46.12   O
ATOM   3464  O   HOH W 396       9.894  49.886  38.202  1.00 37.80   O
ATOM   3465  O   HOH W 397       7.614  49.728  38.071  1.00 41.25   O
ATOM   3466  O   HOH W 398       8.916  51.337  36.706  1.00 48.59   O
ATOM   3467  O   HOH W 399      15.317  50.679  39.636  1.00 46.68   O
ATOM   3468  O   HOH W 400       4.532  51.892  48.960  1.00 47.82   O
ATOM   3469  O   HOH W 401      13.524  46.668  52.360  1.00 62.04   O
ATOM   3470  O   HOH W 402       3.683  55.256  46.778  1.00 37.78   O
ATOM   3471  O   HOH W 403       2.458  51.152  44.379  1.00 50.95   O
ATOM   3472  O   HOH W 404       2.983  53.012  42.325  1.00 36.05   O
ATOM   3473  O   HOH W 405       4.732  53.716  40.157  1.00 45.14   O
ATOM   3474  O   HOH W 406       6.456  56.710  44.082  1.00 86.42   O
ATOM   3475  O   HOH W 407      17.941  55.792  26.404  1.00 27.09   O
ATOM   3476  O   HOH W 408      40.002  68.821  15.892  1.00 65.46   O
ATOM   3477  O   HOH W 409      41.230  62.050  29.064  1.00 67.35   O
ATOM   3478  O   HOH W 410      16.483  60.757  14.259  1.00 36.72   O
ATOM   3479  O   HOH W 411      -2.204  34.610  34.163  1.00 36.51   O
ATOM   3480  O   HOH W 412      -0.176  35.217  32.379  1.00 47.11   O
ATOM   3481  O   HOH W 413       4.922  56.684  -2.176  1.00146.47   O
ATOM   3482  O   HOH W 414       0.875  31.745  51.442  1.00 48.72   O
ATOM   3483  O   HOH W 415      14.103  86.197  11.727  1.00 62.61   O
ATOM   3484  O   HOH W 416      -8.830  78.597  27.991  1.00 50.94   O
ATOM   3485  O   HOH W 417      31.675  47.524  36.707  1.00 37.03   O
ATOM   3486  O   HOH W 418      26.252  36.923  23.737  1.00 47.98   O
ATOM   3487  O   HOH W 419      -5.780  53.991  38.944  1.00 45.02   O
```